Smithsonian

November 1984

Cortona's 'Young Woman,' one of the masterpieces from Vienna's Albertina (p. 62)

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Secretary Adams' comments

Smithsonian horizons

Today the tools of archaeology go far beyond the spade; they are a sophisticated blend of techniques borrowed from many disciplines

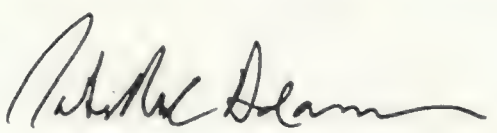
What do the fundamental outlooks and concerns of archaeology contribute to the coming of one of its practitioners to the Secretaryship of the Smithsonian? Begin with what archaeology is not, or at any rate is no longer. Sometimes—but now so rarely that archaeologists cannot justify going to look for them—great works of art or hoards of buried treasure are unearthed. Today, finds of that kind—if scientifically excavated rather than illegally dug up for sale to dealers—almost always are placed in museums in their countries of origin. Sometimes, again, it has seemed important to work toward filling in the gaps on maps or chronological charts. But except for remote corners and unusual circumstances, the need for descriptive inventories of the remains of human activity during successive epochs is long past.

What replaces these objectives? Most important is the desire to achieve an understanding of the human career: How did changes in the human condition occur? Are there general explanations for change, or only particularistic ones? What was the role of the natural environment? Of technological discoveries? Of conflict, within and between groups? Did key developments spread irreversibly across the world, or was progress an accumulation of isolated, local advances? Is "explanation" a valid goal at all, or must we live with ambiguity and accident? A purely descriptive approach is of little help in addressing questions like these. Instead, progress comes primarily by posing new questions and refining new methods.

Apart from the fact that the Smithsonian traditionally has had a major stake in archaeology, this means that the modern Smithsonian's connection with the field is vital and natural. Archaeologists deal with the relics of behavior patterns. Always those patterns are incompletely preserved, and usually they focus on some secondary activity, like the disposal of trash, rather than on the primary social relationships we would like to discover. Seeking to identify what gave the patterns significance in their own time, we must turn to historians, regional planners, cultural anthropologists, or to colleagues in many fields of biology. Archaeology today, in other words, is characteristically a hybrid. It thrives on the cross-fertilization of disciplines that is virtually the Smithsonian's trademark.

Take my own work, much of it connected with the history of cities and irrigation agriculture in Mesopotamia. The archaeological component is relatively elementary. What principally informs the effort lies elsewhere: in history revealed in economic and administrative texts; in an understanding of the potential and limits of traditional agrarian regimes in the region; in studies of alluvial geomorphology, soil salinity and landscape formation. Today even the most important tools of discovery—aerial photography and satellite imagery—have been borrowed from other disciplines.

The long-term support and stimulation of this kind of integrative effort is what the Smithsonian is all about. Its dual status, created and partly supported by Congress but largely subject to independent governance, gives it exceptional opportunities for encouraging the international collaboration that such efforts depend on. So it's a great pleasure to have come aboard.



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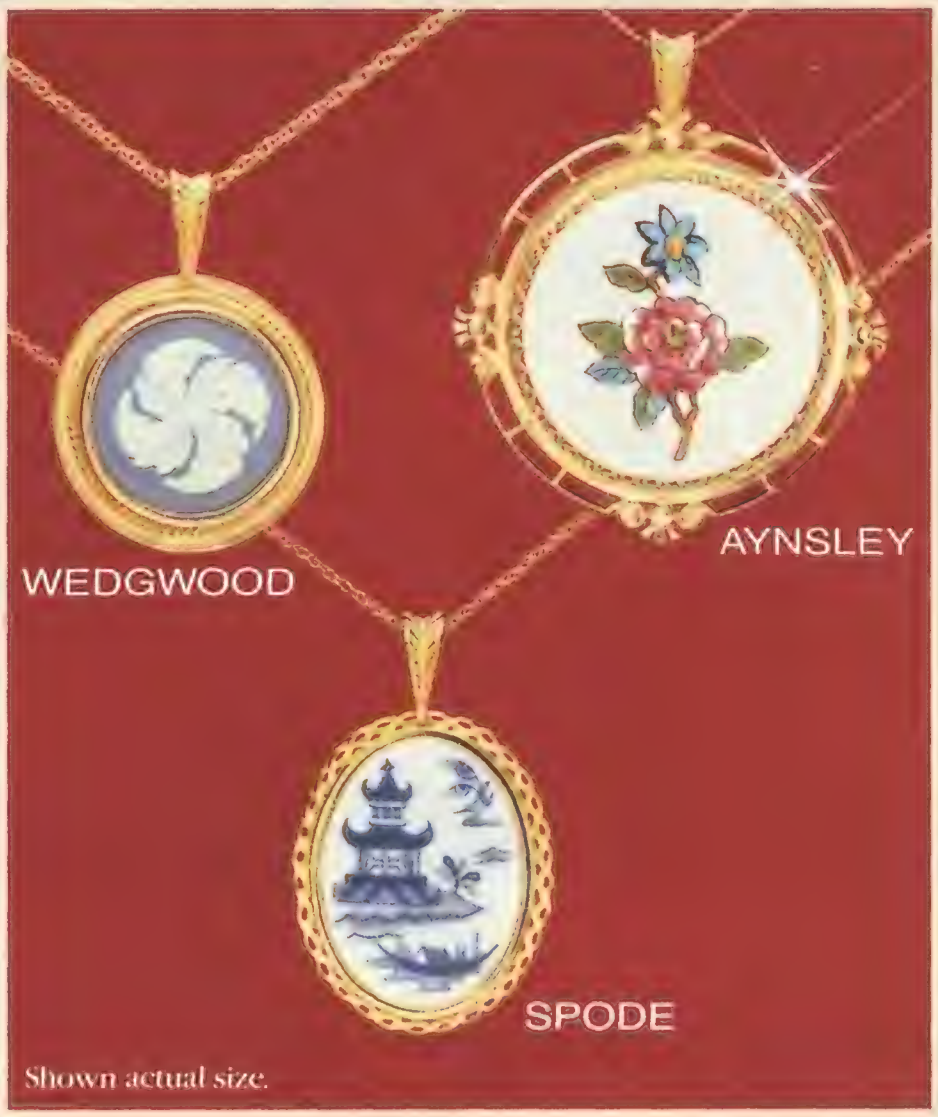

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Dear Sir: I have always respected and admired Secretary Ripley through the years that I have received SMITHSONIAN, but I fell in love with him when I saw him on your September cover in his pink shirt buttoned up wrong! Goslings are much more important than buttons.
Mrs. Harriet Hone
Redlands, California

Dear Sir: After 40 years in the chicken business, one glance convinced me that the "rooster" Secretary Ripley was holding at the Inaugural Ball is a New Hampshire—or Rhode Island—Red hen.
Arthur M. Upshaw
Holly Farms Poultry Industries, Inc.
Wilkesboro, North Carolina
Mr. Upshaw is correct. Secretary Ripley says "It was an errant hen that I captured." Ed.

Conducting

Dear Sir: As to conductors' longevity, I too thought exercise had something to do with it. But a conductor's wife once told me: "Not at all! It's because nobody ever contradicts them."
Ethan A. Hitchcock
New York City

Dear Sir: Jorge Mester's suggestion that aerobics are partly responsible for the longevity of orchestra conductors is one I have propounded for years. And his comment that other, nonphysical factors may also contribute is most likely true. Conducting is an exercise of personal power.

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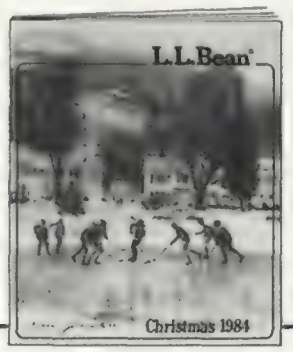

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I watched a demonstration of this at one of Bruno Walter's last concerts in Carnegie Hall. A bent, tired-looking little old man shuffled out of the wings, ignoring the applause that greeted him, slowly mounted the podium and, after a perfunctory bow to the audience, turned to face the orchestra. His shoulders straightened, his head rose, he seemed to grow and fill the space, like Faust's poodle. By the time he gave the downbeat, a large, vigorous man stood there, and remained that way as long as the piece lasted. When it was over he turned, bowed and slowly walked off, a bent, tired-looking little old man once more. Many years later I observed the same transformation with the aged Pablo Casals, conducting at his Puerto Rico festival.

Thomas T. Semon
Demarest, New Jersey

Probability

Dear Sir: James S. Trefil's informative article brings to mind the story of a jittery businessman whose work required that he make extensive plane trips. As one of his phobias was about being subjected, while airborne, to an explosion from a planted bomb, he asked a programmer friend to ascertain, through frequency analysis, the likelihood of his encountering such an infernal device.

With odds in hand, he asked the probability of there being two bombs aboard.

Advised that those odds were astronomical, he thereafter always packed a defused bomb in his suitcase, secure in the knowledge that his trip would not be interrupted abruptly.

G. Bradley Sparrow
Stamford, Connecticut

Dear Sir: Probability statistics have always interested me, and so I take special interest in James Trefil's article.

However, I believe I detect a couple of errors. The odds that two cards drawn from a deck will be the same suit are 1 in 4.25 as I make it, not 1 in 17. And the example of the graduate student offering two-to-one odds on heads seems exactly back-to-front. If he offered such odds he would lose, not win, $2 for each $1 bet. Shouldn't the author have said "offered to *take* two-to-one odds"?

William H. Kelty
Chappaqua, New York

Mr. Kelty is correct on both counts. We

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should have made clear that we were speaking of two cards drawn to a pre-established suit, in which case odds are 1 in 17. As for the Stanford student, the cart was before the horse. Ed.

Margaret Mead

Dear Sir: I should like to share with my fellow readers a story of my first and only contact with Margaret Mead. At a Washington conference a matronly figure holding a large staff walked up to the group I was with, acknowledged introductions and promptly pulled aside one social scientist whom she knew. She began a conversation with "As I was saying. . . ."

After a rather animated talk of 20 minutes or so, our friend rejoined us and said, "That, gentlemen, was the last half of a conversation Margaret and I were having in Geneva about ten years ago."

Charles A. Gilmore
Harrisburg, Pennsylvania

Dog Museum

Dear Sir: I was very much interested in your photograph of the dachshund on wheels. My little Ophelia, whose back legs were paralyzed by a ruptured disk, has been on a sheepskin-lined carriage for eight of her 11 years. Here, she is investigating purple sage growing near Mather Point overlook on the South Rim of the Grand Canyon.

William Sowder
Farmville, Virginia

A dachshund's proportions—elongated back and stubby legs—make it prone to spinal injury and paralysis; with rear wheels and carriage it can be mobile. Ed.

Wheeled Ophelia at the Grand Canyon

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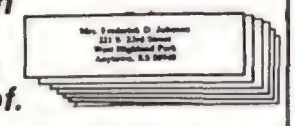

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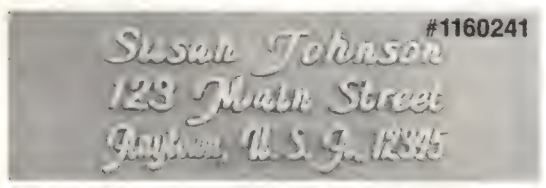

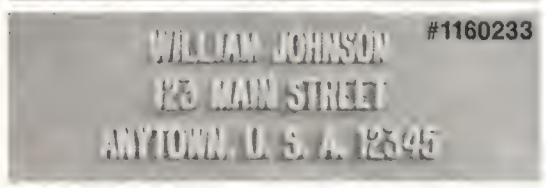

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Phenomena

Dear Sir: As a former outfielder who became a first baseman when his arm, never great, went bad, I especially appreciated Mr. Wiley's observation that "Once the ball is in the air, nothing else exists."

I considered that very phenomenon only last year, in close interaction at first base with a certain third baseman. His accuracy was somewhat less than pinpoint, but once the ball was in the air there were sublime moments of perfect and utter isolation, intense concentration and focus. It was totally compelling and so very different from the way I spend most of my time: no consultations, no approvals to be sought, no meetings, memos, thoughts, calculations; just motion and action, me and the ball, in the whole world. Excepting emergencies, there are few such moments in life, moments with absolute and immediate demands that may not be denied. That is what we seek to experience when we play sports, a succession of little emergencies which demand immediate, unthinking, perfect response—success or failure.

Everett Johnson
Washington, D.C.

Origins

Dear Sir: I teach at a small school in central Texas, and my eighth-grade students learn a "time line" when we study Shakespeare to help us put the plays in perspective. Included are the dates of the reign of Elizabeth I, 1558-1603.

So, as I read your article aloud, my students instantly noticed that your date for the Queen's birth, 1553, would have made her a five-year-old queen. They thought that was rather young. We are certain 1533 was the intended year.

Melanie Smith
Richard Springs, Texas

Mrs. Smith and her students are correct. A typo was not caught. Ed.

Remember milk bottles . . .?

Dear Sir: Mr. Kernan's article is based on a false premise. Time is not going faster. Do you remember when you could stretch it? Now, alas, it barely covers minimal essentials.

David Goldstein
New York City

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Dear Sir: Many of us could add to the "gone, but not forgotten" list:

Ice chips from the back of the iceman's truck that we crunched with delight and with nonsensitive teeth; lawns to be mowed to the soft whirr of a blessedly nonpower mower; the wonderful scent of burning autumn leaves. Swimming holes ten feet wide and 15 feet deep, icy cold, delicious for skinny-dipping, no admission charge, no parking fee (besides, only one in seven of us owned an ancient auto).

A well and pump in the side yard for real drinking water; nonhybridized tomatoes with the flavor of warm sun; nonpasteurized milk.

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G. Finn
West Orange, New Jersey

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Around the Mall and beyond

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The plywood wall that keeps us from hurtling into the excavation for the Center for African, Near Eastern and Asian Cultures (now fast abuilding) has lured young artists to one section beside the Mall, between the Freer and the castle. Last summer, youthful Resident Associates, making a videotape of the construction, were given painting lessons by Ann Wizer and assigned to produce a mural on that stretch of board. Everyone appropriated a section to work on. The unifying theme was that all artists incorporate a letter in their work (p. 35), and the letters would, when finally completed, spell out THE QUADRANGLE.

Generally, the mural dealt with natural history scenes—exotic animals in a setting of woods, fields, streams. The letters were concealed in the shapes of the landscape or of the creatures in it: thus two rabbits holding hands make a recognizable "H," and a pair of giraffes was intricately posed to form a "G" in a shade of orange that, I was assured by their artist, "you ought to be able to see at night."

Being habitually awed by artists, I was pleased to find that these would talk to me affably and coherently instead of with the bemused despair that my questions and comments more often inspire. "Pandas," I was told by one boy with bands on his teeth, "are *easy*."

"We don't get paid, but we'll accept donations," said his friend. "Three or four thou would be fine."

A young girl in a paint-smeared shirt that certainly originated in her father's dresser walked past me distractedly. "I hate my bridge," she muttered more to herself than anyone else. "I really hate it."

I saw the bridge all right, but try as I would, I found it difficult to hate. It seemed a fine, highly rounded, Japanese-garden-type bridge. I knew, of course, that once again I faced my old bafflement with art. Like the elders of her sect, this young artist was off on a plane of thought that I couldn't for the life of me share. Even at her age, maybe 13, she saw things that eluded me; she made pure, hard judgments where I could only gape and nod.

I glanced around at the intent young people, all busily filling the plywood fence with color and life, all sharing an invisible ride through imaginary realms. And being the only pedestrian there, I walked humbly away.

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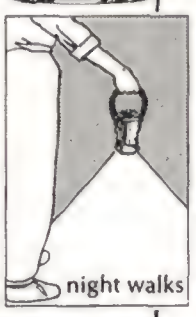
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One artist who baffles but also intrigues me is the photorealist Richard Estes. He has a couple of paintings at the Hirshhorn: *Diner*, which looks exactly like a color photograph of a diner, and *Waverly Place*, which looks exactly like a color photograph of urban streets coming together. The only apparent difference between Estes' work and a camera's is that his subjects are so unremarkable.

I can't pinpoint that diner, though it appeared, I am told, in a movie. I know Waverly Place is in New York because a friend of mine used to live around a corner from it. *Waverly Place* was included with the Smithsonian treasures that went on display at the Edinburgh Festival last August, and the painting consistently attracted the largest gathering of viewers. British, North and South Americans, Europeans, Antipodeans, Africans and Asians—they too seemed both baffled and intrigued.

An elderly Scottish couple started to walk past it, then paused. Except when their bagpipes call them to battle, the Scots are a gentle, courteous people, and their voices are soft and lilting. This stocky old gentleman and his comfortably unfashionable companion, who smelled of lavender soap, stood arm in arm in front of *Waverly Place* for some moments before speaking. Then: "Theerr's a spot in Boston that looks just like that," he said musingly.

She looked at him, her wide blue eyes freshly interested. "Och, I'd forrgotten that ye speint some time theerr."

"Aye, I speint a month when I was a young man."

"My brrother speint a year in Chicago," she said. She pronounced the "Ch" hard, instead of with the "sh" sound Americans always give it. "He said it was neicerr than Boston."

There was a little pause, and then he said, "Ah, weel," and off they went together, having made their own connections between the artist's *Waverly Place* and the real world.

Baby animals have a way of warming the human heart: they evoke a sense of innocence in our all too corruptible environment. And so it is especially sad to note that on August 30, just as her description in September's *Around the Mall* was being read, the little elephant Jayathu died. For two weeks she had been suffering

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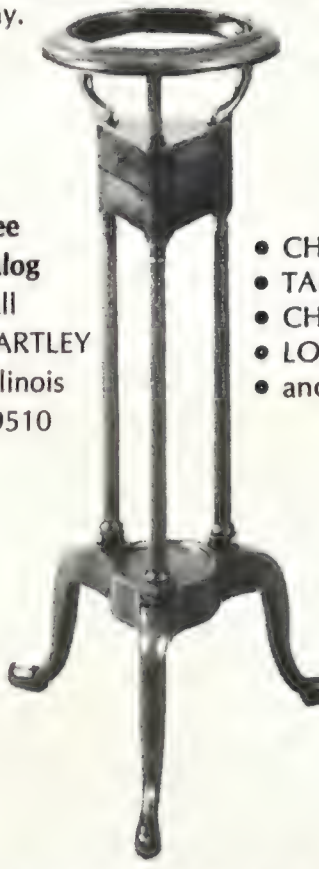

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from diarrhea. She lost her appetite and eventually 110 pounds. Veterinarians operated to implant an esophageal tube so that she could be fed. Complications arose, she seemed to rally, then weakened again and despite devoted efforts slipped away two days later.

It's essential to know the clinical reasons for Jayathu's fatal illness. It's also important to give this 20-month-old infant a special nod. Little Jayathu inspired a unique affection that made all who watched her feel better about themselves and about the world.

I stopped in the other day to check up on the progress of the new Science Calendar which the Smithsonian Family Learning Project has just produced to make life and learning a little more fun in 1985.

The calendar, which is illustrated by Simms Taback, presents a project every month that families can tackle together and that will teach the younger members —and often the older, too—things about the physical world around them that they probably haven't known before. The experiments range from baking a pizza shaped like the contiguous United States, with major cities in slices of pepperoni, to a series of investigations into the life and times of the everyday picnic ant.

Suitably inspired, and feeling especially young at heart, I decided to make ginger ale, the project for next April. It seemed like something I should be able to stumble through with a result that my trusting grandsons might venture to try. My experience came from once making champagne cider back in New Hampshire under the tutelage of my father's friend Slocum. The cider looked pretty good when we wired the corks on and racked the bottles in the cellar, but the fact is, I never got to taste it. The war came along while it was aging, and two years later I got word that when a July thunderstorm rolled down the mountain on us, the pressure dropped and the cider went off in a chain reaction, blowing the bottoms out of the bottles and flooding the cellar. Slocum later reported it was "still fizzin' like one o' them geezers" when he waded through it, and that after breathing the fumes he fell up the cellar steps on the way out. Forty years later the place still smells wonderful.

The ginger ale recipe seemed simple in comparison. We needed yeast, ginger, limes, sugar, cream of tartar, a big pot and some bottles that could be firmly capped. My wife and I figured we had everything but yeast. Off to the market for that. Then I discovered we were out of cream of tartar. Another trip. And when it was time for lime juice, I recalled a marvelous rum drink I'd made two nights before, thanks to the last of our limes. Off again, this time trying to look like someone else at the checkout counter.

It's done at last. But it needs a rest for

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two days (so do I) before we get the grandsons over for a tasting.

"What did you learn from it?" asked John Falk when I told him what I'd done. John is director of the Smithsonian Office of Educational Research, and the calendar is pretty much his baby.

"Yeast," I told him. "I never knew much about yeast before. Also, that every family ought to own some cheesecloth, and none does."

John, an intense young man who used to run the educational program at the Smithsonian's Chesapeake Bay Center, says he wants the calendar to compete with TV, and complement soccer and all the things kids are into. The monthly projects were chosen because they tell you something and are fun to do. Also, they fit into normal activities of growing kids, like messing around in the kitchen.

"We want adults interested, too," John told me, "so the experiments revolve around plants, health foods, energy, all the sorts of things that parents generally care about."

John has never been a teacher, but has strong feelings that education is a matter for the entire community, not just for the school. His Office for Educational Research goes beyond what schools offer. For the calendar, the group enlisted whole families who had learned about the project in newspapers and on radio. They would try an experiment, then write or phone in their suggestions, criticisms, corrections and improvements. The calendar displays 12 of the best activities, produced to a considerable degree by family feedback.

"If it works out," says John Falk, "we'll keep it up in years to come." Buy your cheesecloth, folks, and stand by.
Edwards Park

Afterword: The ginger ale was more-or-less acceptable to the older grandson and enthusiastically endorsed by the two-year-old. I liked it, too. I mistakenly left the bottles in a warm place before rereading the directions on the calendar and hastily refrigerated them. The warmth probably produced a bit of alcohol—which explains the wrinkled nose of the older boy and the smiles on both me and the two-year-old—who would gladly share your martini if you let him.

Apparently I've got the world's only two-proof ginger ale. *E.P.*

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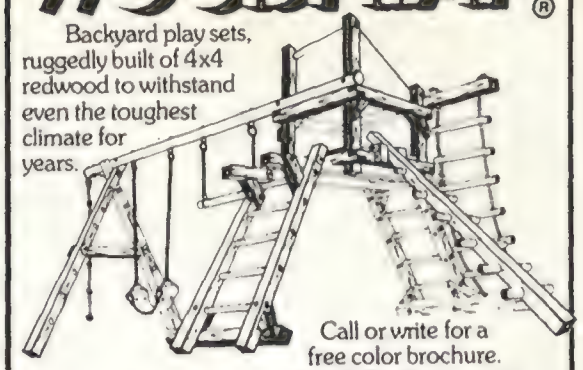

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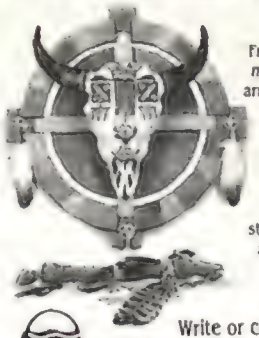

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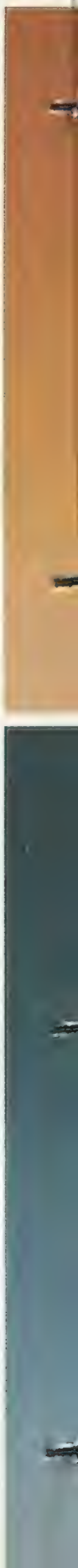
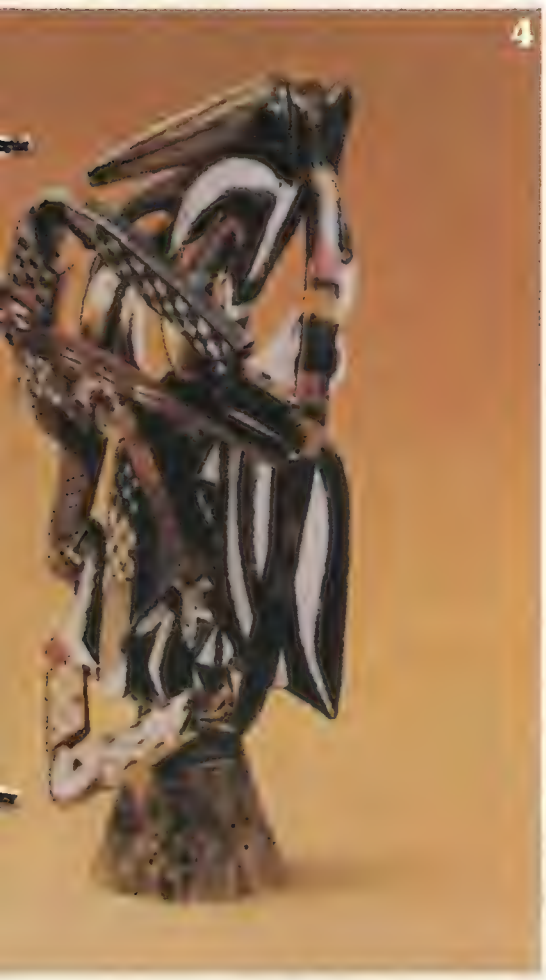


"primitive"? "modern"?



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" 'Primitivism' in 20th Century Art: Affinity of the Tribal and the Modern" appears at The Museum of Modern Art, New York, September 27, 1984—January 15, 1985; The Detroit Institute of Arts, Detroit, February 27—May 19, 1985; Dallas Museum of Art, Dallas, June 23—September 1, 1985.

1. TALL FIGURE. Alberto Giacometti 1949. The Museum of Modern Art, New York, James Thrall Soby Bequest. 2. BUST OF A WOMAN (MARIE-THERESE WALTER). Pablo Picasso 1931. Musée Picasso, Paris. 3. FIGURE. Nyamwezi, Tanzania. Collection: J. W. Mestach, Brussels. 4. BIRD HEADDRESS. Baga, Guinea. Musée de l'Homme, Paris. 5. SYMPHONY NO. 1. Vladimir Baranoff-Rossiné 1913. The Museum of Modern Art, New York, Katia Granoff Fund. 6. NIMBA MASK. Baga, Guinea. Musée Picasso. Paris (Formerly collection. PABLO PICASSO).

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Phenomena, comment and notes

Single data point leads scientists to galaxies that may be colliding, and fireworks bright as two trillion suns

My writing the *Phenomena* column is really a second offense against the long-suffering readers of America: for six years, in my New York days, I wrote a monthly column on what was happening in astronomy. I would seize upon each issue of the *Astrophysical Journal* and its high-speed counterpart, *Astrophysical Letters*, which carried the fast-breaking short papers. To be suitable, subjects had to meet my special criteria: I had to be able to understand, at least vaguely, what the authors were saying, and each subject had to have some potential as a future conversational tidbit at a cocktail party. Then, on deadline, I would stay up most of a Sunday night trying to translate the impersonal prose of the journals into narrative descriptions of each small step toward our understanding of the Universe. In the morning I would take the train into New York, walk across the street from Grand Central, and pay a messenger to rush my copy to the editor's desk.

Toward the end, however, I fell into a formula. Describe the problem or the unexpected observation, then follow it through with the solution of the problem or the explanation of the finding. Even with all the rhetorical contortions I could muster, a sameness settled over the column. So I gave it up.

Now I find I miss it. Over and above the subject at hand in any given scientific paper, there is a fascination in seeing how scientists can take a handful of pieces and put together an elegant picture. Each piece that falls into place satisfies and excites, setting up a mental momentum not unlike that of a jazz group romping toward the finale.

A nice example turned up in the August issue of one of my alma maters, the physicists' trade magazine, *Physics Today*. A news account by Bertram M. Schwarzschild, an associate editor, begins with one interesting fact about what he calls an "unprepossessing" galaxy of the 14th magnitude and ends up with a new class of celestial objects as dramatic and violent as anything we have seen.

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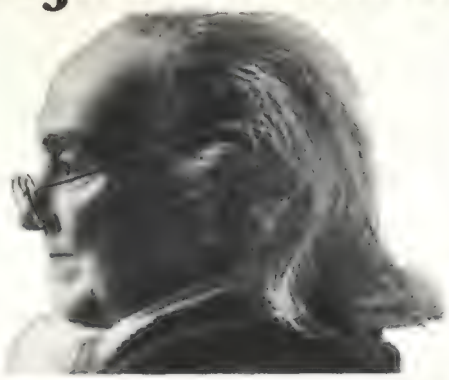
The galaxy lies 300 million light years away, close in our summer night sky to the bright star Arcturus. It is about 70,000 light years across, a typical size (our own is about 100,000 light years in diameter). In 1966 it was included in Halton Arp's *Atlas of Peculiar Galaxies* on the strength of a dark ridge between the galaxy's two bright nuclei. Some have thought the dark area to be merely obscuring dust clouds, but others propose that it shows a real absence of matter and that what we really are looking at is two galaxies colliding with each other.

The news is that the Infrared Astronomy Satellite (IRAS) found it to be one of the ten brightest infrared sources in the entire sky (outside of our own galaxy). It shines in the infrared with a luminosity about two trillion times that of the sun and 100 times that of a normal galaxy. The only more luminous objects known anywhere are the quasars, those mysterious powerhouses that look like stars in photographs (hence "quasi-stellar" or quasar) but pour forth the energy of a billion suns from a volume about that of our solar system. The light from quasars, however, is concentrated in the visible and shorter wavelengths.

The light we see coming from Arp220, as the galaxy is known to astronomers, is not coming directly from whatever unthinkable source of energy powers it. Rather, what we see is radiation emitted by cosmic dust clouds around it. The dust particles, possibly microscopic bits of graphite and silicates, are heated by the central source and then in turn give off the infrared radiation we see. "Heated" is the correct word here, but it is misleading to our everyday senses; Thomas Soifer of Caltech and the IRAS team put the temperature at somewhere around −350 degrees F.

Arp220 may not be unique, but only the nearest of its type to us on Earth. Astronomers working with the IRAS results had found eight bright infrared sources, all apparently outside our galaxy, for which no likely objects could be found on the Palomar Observatory Sky Survey plates, our best photographic coverage of the sky. These had come to be known as "blank-field" objects. Now the thinking is that they are like Arp220, but too far away to show up clearly in the Palomar survey photographs.

Benjamin Franklin



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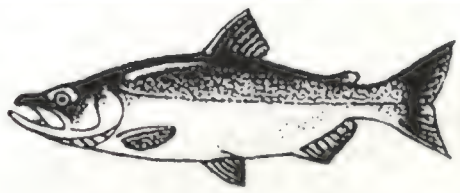

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A relative may be Mrk231, the most luminous of the Seyfert galaxies. These are a special class of galaxies that look quite normal except that their cores are almost as energetic as quasars. Many astronomers consider Seyfert galaxies and quasars to differ only in degree, not in kind. Mrk231 too has a luminosity of more than a trillion suns.

Arp220 had attracted attention in 1978 when Linda Dressel and James Condon at the National Radio Astronomy Observatory found it to be a very strong and highly localized emitter of radio waves. Last year Timothy Heckman of the University of Maryland and others examined 30 unusually bright radio sources, including Arp220, to try to distinguish between two explanations offered for them. Did they have Seyfert nuclei at their cores, or were they regions of intense star formation? The group was able to fit 29 of the radio sources into one category or another, but Arp220 defied classification: it showed characteristics of both types.

Elsewhere a pattern began to emerge. James Houck of Cornell, who with the IRAS team had compiled the list of blank-field objects, looked again with the 200-inch Palomar telescope and a University of Arizona group working with the 158-inch instrument at Cerro Tololo in Chile did the same. Eight did indeed yield images of very faint galaxies. And two or three of these showed faint signs of a structure similar to Arp220. Possibly they were colliding galaxies.

Carol Lonsdale of the Jet Propulsion Laboratory tried another tack. She found a strong correlation between bright infrared sources discovered by the IRAS and objects that appear visually to be pairs of galaxies that are colliding or in some other way unusually near to each other. It is possible that when galaxies come close to each other, they set up shock waves in the gas and dust between their stars, compressing it in places so much that new stars form much faster than they otherwise would. This is known as a starburst model.

It is not certain that Arp220 is a case of colliding galaxies, but astronomers are attracted to that explanation. Frank Low of the University of Arizona, another member of the IRAS team, has offered an even more complete scenario. He proposes that collisions between galaxies do indeed trigger "runaway formation of massive stars." The most luminous of the infrared galaxies will evolve into quasars, he suggests, while the less luminous will end up as Seyfert galaxies.

Scientists are still poring over the IRAS results, of course, and have already found another superluminous infrared galaxy. And they are designing a new infrared satellite that will be 1,000 times as sensitive as IRAS. When it will fly is an open question. Among scientific satellites, the highest priority has been given to one called the Advanced X-ray Astrophysics Facility, and construction on that will not start until 1987. A new infrared satellite will have to follow that.

Maybe by that time I will have found ways out of my old formulas and be able to read the journals with a fresh eye. Then it will be time to suggest to the boss that I be given a new title—perhaps something fittingly modest like "intergalactic correspondent."

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BUCKLE UP FOR SAFETY.

By Michael Parfit

Nations are debating the future of the Antarctic's frozen assets

On the East Antarctic Ice Sheet, windblown snow transforms a temporary Australian base into a ghostly presence. Scientific stations are one way countries enhance territorial claims if pro-research treaty falters.

It is still far too early to know how valuable the krill, oil and hard minerals might be, but burgeoning interest is forcing decisions

White sheathbills pecked in the ashes. The seven Argentines wore orange survival suits. The U.S. Research Vessel *Hero* rode at anchor a quarter of a mile offshore, green as a Christmas-tree ornament. The last little flames were red. The remains of Almirante Brown Station were black.

There was no time to linger. It was getting dark. It was getting to be winter. The *Hero*'s Zodiac came to shore. Abel Aguirre, the Argentine radio operator,

Second of a two-part series

Tempest over Antarctica's frozen assets

Remains of Argentine base, Almirante Brown, lie smoldering after a fire totally destroyed it in April.

U.S. Research Vessel *Hero* supported marine biology programs during 1983-84 summer, its final season.

embraced Captain Pieter Lenie, skipper of the *Hero*. Then the seven men got their bags and walked down to the Zodiac from the hill on which remained unburned only the emergency hut and the signs: "You are in Paradise Harbor, Argentine Antarctica."

The bags were light. The men had saved little. As the Zodiac backed from the landing, a meteorologist crossed himself, reached out with his hand and patted the snow. "*Adiós,*" he said. "*Otro año,* Brown."

The *Hero* was the only ship left in the area when Almirante Brown Station burned down on April 12, 1984. Without the U.S. ship the men there might have had to spend the winter in the emergency hut. Or things might have been different. The last ship could as easily have been the British Antarctic Survey vessel, the *Bransfield.* That would have raised a question significant in international politics: Would the British, who recently fought a war with Argentina not far from here, have been so quick to leap to assistance?

The answer is unequivocal: Yes.

In Antarctica, a 5.4-million-square-mile continent whose influence extends almost as far north from the South Pole as Canada extends south from the North Pole, patterns of life are different. Today Antarctica is

The seven survivors were picked up by the *Hero*, the last ship to leave the area before onset of winter.

emerging from its cloak of mystery to join the civilized world as an intact continent, known in its entirety. But even if its climate, topography and impact on the rest of the globe were not so strikingly unusual, it would still be unique.

Antarctica is remarkable in a human sense in at least two ways. First, the foundations of its civilization have been built not by religion or politics or conquest but by science (SMITHSONIAN, October 1984). And second, the relationships of politics and human cooperation that have evolved south of the Antarctic Convergence at about 55 degrees south latitude are as grand an experiment as the science. As Antarctica emerges out of the blank white borders on the bottoms of our maps, and as international debates over its resources involve more and more nations, the success of that experiment may exceed the value of all those resources as Antarctica's greatest promise.

Years ago, at the end of a particularly busy and trying year of work on Antarctic issues, John Heap turned to his boss, Brian Roberts, and asked: "Well, what the hell have we achieved this year?"

Heap is presently the head of the Polar Regions Section of the British Foreign and Commonwealth Office. At that time Roberts was head and Heap was second in command. "Oh, no problem," Roberts said. "We kept peace in the Antarctic for another year."

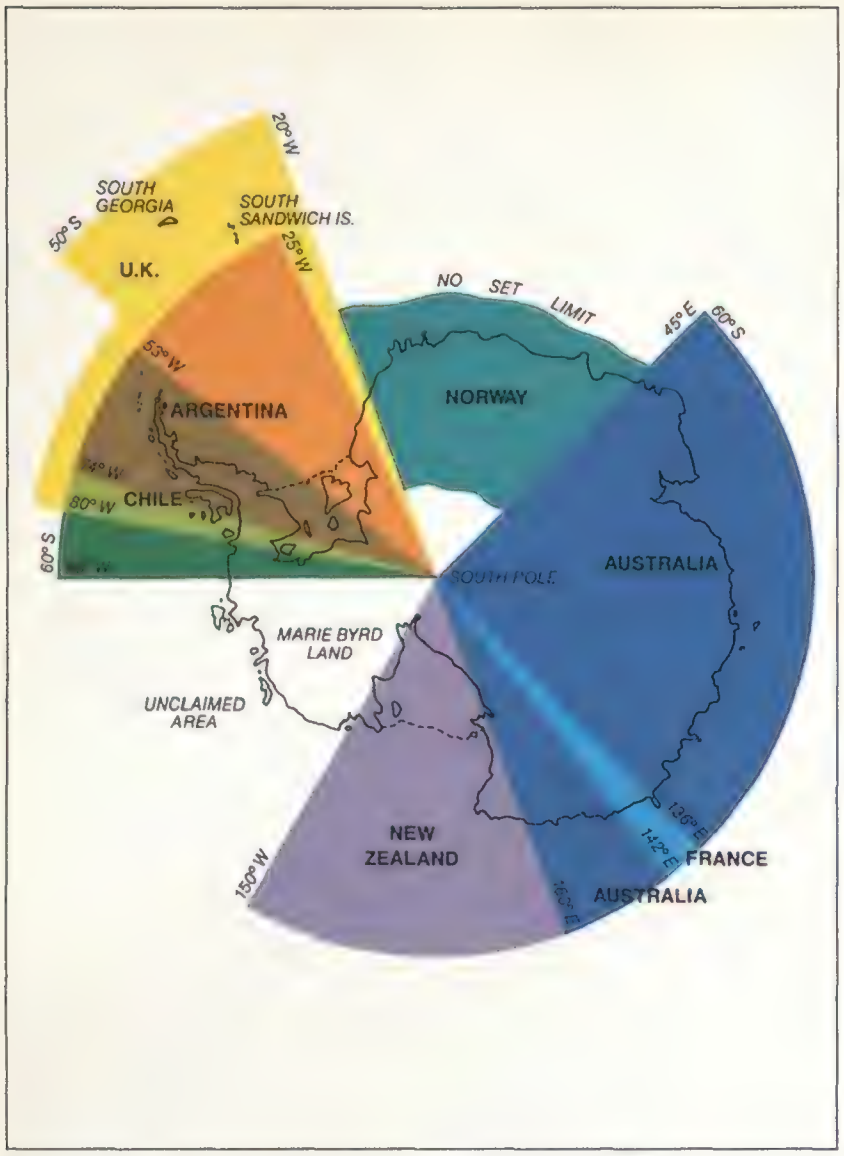
Back in 1959 it might indeed have been hard to get a betting man to put money on a year's survival of the document that, supported by people like Roberts and Heap, has given Antarctica 25 years of domestic tranquility. Like most Antarctic institutions, this document, the Antarctic Treaty, grew out of scientific research. The background was the highly successful International Geophysical Year (IGY), a year of concentrated cooperative research that took place in 1957 and 1958. Even with that lofty background the drafters of the treaty had a lot to contend with: seven of the nations interested in Antarctica claimed portions of the land, several claims overlapped and there had been shooting, when Argentine soldiers fired over the heads of a British party at Hope Bay. The other five didn't recognize anybody's claims and might make their own claim announcements any day, which might overlap everybody else's. Two of the latter, the United States and the Soviet Union, were at the time daring each other to blow up civilization and could certainly be expected to extend their preparations for that great event to Antarctica.

The 12 nations were Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, Great Britain and the United States. They, with the recent addition of Brazil, India, Poland and West Germany, make up what are now called the Consultative Parties. The arrangement the 12 nations signed in 1959 and put into force in 1961 codified the existing preeminence of science and outlawed militarization. But the genius that permitted those achievements (or, to some, the Achilles heel that may doom them) was Article IV, which reads in part: "No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica."

"The treaty says *this*," John Heap observed, grinning with delight: " 'Here's an insoluble problem: Let's set it aside.' "

Just like that: set it aside. Suddenly all those overheated issues of sovereignty, boundaries, ideology, possession and jurisdiction were simply declared insignificant compared with the goal of keeping peace in Antarctica. It worked.

The author, who traveled in Antarctica between November 1983 and April 1984, is writing a book about the continent to be published next year.



Seven nations claim parts of Antarctica. Three claims overlap: those of Chile (from 90 degrees west longitude to 53 west); Argentina (from 74 west to 25 west); United Kingdom (from 80 west to 20 west).

At a jetty in front of Marsh Base, Chilean colonist mother and children encounter a chinstrap penguin.

At the end of March 1984, I was left by the *Hero* on the gravel beach shared by the Chilean base Teniente Marsh and the Soviet base Bellingshausen on King George Island, just west of the Antarctic Peninsula. There the most striking evidence of both the strengths and weaknesses of the Antarctic Treaty system were the children.

Chile and Argentina are viscerally attached to Antarctica. Their maps paint their claims in national colors. Each says it owns a wedge-shape territory that includes the Antarctic Peninsula, the warmest and most productive part of the continent in terms of terrestrial life. The two claims overlap each other and are in turn overlapped by the British claim (left). Although both agree in denying the British right to cut a slice from Antarctica, their own rivalry is intense. So when the Argentines started marrying people and delivering babies at Esperanza Base in 1977 (the first Antarctic baby, Emilio Marcos Palma, was baptized in January 1978 at Esperanza), it was no surprise that the Chileans soon followed suit.

In February 1984, the families of six of the men employed on the base—including six children ages one to seven—arrived at Teniente Marsh Base. Their departure from Chile had been attended by a national newspaper fanfare for the "*Familias colonizadoras de la Antártica*." They moved into six small but comfortable homes on stilts up the hill from the Marsh Base buildings. The houses were boxes with small windows and huge freezer doors, but together they bore a grand name: Village of the Stars.

The Antarctic Treaty's famous Article IV says that nothing a member nation does can enhance its claim, but it doesn't prohibit actions that might enhance it in the absence of the treaty. Without the treaty, decisions on *who* owns *what* might rest upon the theory in international law of effective occupation, which could include such diverse precedents as having a police force or supporting guano collectors. So the two nations have flown politicians south to kiss the earth, they have applied laws, they have mailed letters, they have maintained aids to navigation—and they have brought children to live in the Antarctic.

A hotel room next to the nursery school

I spent ten days in the building the Chileans call the hotel, which was not a bad one for the money: $35 a night, American Plan. The one-room nursery school taught by the mothers was next to my room; as wind and rain lashed the windows, the children would be turned loose to race up and down the halls and jump a rope tied between two chairs in the dining room. Their feet were light and quick. Their mothers' voices were soft. It was hot new blood in the cold.

Fifteen-ton Australian tractor pulling sleds falls victim to common hazard of a traverse in Antarctica—being "eaten" by a crevasse that was hidden by snow. Often, vehicle can be pulled out with help of a winch.

Winter was bearing down on Marsh Base. The wind was constant, sometimes throwing snow hard, like handfuls of sharp sand. Getting the children from the hotel into the four-wheel-drive vehicle to go home was already a threat to fingers and noses and ears. They had been there two months and had 22 months to go. Sometimes the pursuit of effective occupation seemed to me to be a particularly cynical use of children—except that it was so good to see them. The families warmed Antarctica.

A few other nations complain righteously about overt Argentine and Chilean acts supporting their claims. But some argue that these actions do in fact point out the treaty's flexibility: in permitting such things it is not harmed by them, and they allow for the expression of some mild chauvinism that might build up force if it were more confined.

It is not as though any of the other nations are innocent of similar maneuvers—if not in support of a claim, then in support of a rather ghostlike notion that is called presence.

The matter of presence is more nebulous than sovereignty but almost as hotly pursued. The Soviet Union, which recognizes no claims, has established bases in a logistically horrible but otherwise quite logical pattern—in terms of presence—of at least one in almost everyone else's claim. The enormous U.S. science program is supported by a Presidential memorandum which, before it even mentions science, calls for "an active and influential presence in Antarctica. . . ." (Presence has both strategic and possessive overtones, although the superpowers seem willing to give up the relatively minor strategic value of Antarctica—compared with the Arctic—in favor of not having to chase each other around, as one diplomat put it, on another remote part of the globe.) At least one student of Antarctica, F. M. Auburn, author of *Antarctic Law and Politics*, calls the United States' pursuit of presence vague and contradictory, but obviously not everyone agrees.

"We have a very legitimate basis for making a claim," said Tucker Scully, the director of the State Department's Office of Oceans and Polar Affairs. "As long as the treaty is in force, we're legally obligated and quite delighted not to assert a claim, but if the treaty ever falls apart we have that option."

How the United States is maintaining that basis and its mandated presence is a subject of much discussion within its own program. Capt. Brian Shoemaker, Commander of the U.S. Naval Support Force, Antarctica, makes it clear he is concerned about the Soviets' aggressive base-building program. With the recent temporary closure of Siple Station, the United States now has only three year-round stations: Amundsen-Scott South Pole, McMurdo, and Palmer in the Peninsula, where I had been living before I went to Marsh. Shoemaker would like to see more U.S. bases but would also like to see an even more permanent commitment to the continent—specifically, for flight safety, a runway and base on the gravel at Marble Point near McMurdo to replace the ice runways used today.

The idea that the United States needs to engage the Soviets in a base race is anathema to Tucker Scully. "I'm not sure what a presence in terms of a station gives you in a political sense," he said. "We have developed a much better alternative—the capability of flying in an entire field camp, getting in and getting out, and doing good research. If you want to argue the geopolitical point of view, there are more benefits to that than establishing a station in every quadrant. You don't have three guys holed up there all winter with an American flag under their armpit, but I think that's as good a presence."

Just across a little creek from Marsh Base is Bellings-

Tempest over Antarctica's frozen assets

hausen Station, the Soviet base. It is a stark, ascetically-furnished place, but its ceilings are elegantly high, an old-world extravagance. Often in the afternoon or evening I would walk down the hill from the Chilean hotel, under antennas that howled in the wind, across the mud on wooden slats, to Oleg Struin's office. Struin was the commander of Bellingshausen, and he would grin and pull out a tablecloth for the coffee table, cookies, crystal glasses and cognac, and we would drink toasts to Antarctica. He spoke little English, and I, straining most of the rest of the day to communicate with the Chileans, kept trying to talk to him in my terrible Spanish, which he spoke not at all. But we somehow managed, at one point roping in three ebullient young East German biologists who were working there. They listened to Struin's Russian, discussed it in German and passed it on to me in English. We all drank more cognac.

"I polarman," Struin said, grinning. He was indeed. At 51, he had spent most of his career either in the Soviet Arctic or in Antarctica, including four previous separate years at Vostok Station on the great East Antarctic Ice Sheet, one year at Mirnyy on the east coast and two at Bellingshausen. He had been base commander here in 1982, had gone home to Leningrad for six months, then came back. "No problem for polarman," he said. Struin had an Antarctic presence all his own.

In the years since the signing of the treaty, friendship has been the Antarctic way. Enmity and violence have not extended south. The treaty guaranteed peace and stability in an area that could have been a victim of the Cold War (it is the only international agreement to which the United States and the Soviet Union are party which allows free inspection at all times). When the treaty nations met in Wellington, New Zealand, to discuss a minerals regime (legal framework), it was

Brazilian biologist staying at Chile's Marsh Station works on research project to band chinstrap penguins.

East German scientist at the USSR's Bellingshausen Station measures foreleg of a protesting skua chick.

With flag unfurled, Japanese tourists from cruise ship pose atop whale skeleton on King George Island.

At Bellingshausen's muddy shoreline, Russians move 500-pound crate from boat to flatbed tractor, right.

at the height of the Falklands crisis and all Argentine diplomats had left the country—except for those dealing with Antarctica. They and the British sat together at the table and never mentioned the war.

Oleg Struin and I sat at the table and never mentioned the desperate relations that exist between our two countries. We could not avoid, however, discussing the fact that the Soviet Union and Chile do not even exchange diplomats, but that here they live cheerfully across the creek from each other, bartering jeans and hats and sharing water.

A time to dream, a time to work

The two bases can't help criticizing each other's style, though. Struin thought the Chileans had too many men for not enough work. "When people no work, just rest, they only dream," he said. "Grows psychological problem. My people work every day; no time for psychological problem."

The Chileans thought the Russians driven by toil. "Life in that base is very strong," said one in English, shaking his head. "You mean hard?" I asked. *"Dificil?" "Si, si."*

But sometimes, after I left Marsh and Bellingshausen bases to their winter blizzards, I wondered if what he had said first was more correct for them both.

The future contains an enormous hurdle for Article IV. It is not the date sometimes seen as a moment of truth for the treaty—1991—when the whole system may be reviewed at the request of any consultative nation. By then the treaty will be hearty or dead. The problem that makes Article IV look fragile is here now. It is the issue of resources.

"The treaty has survived because in 1959 the claimants were all in favor of allowing free scientific research," said Christopher Beeby, Assistant Secretary of New Zealand's Ministry of Foreign Affairs and head of his country's Antarctica team. "It was a marginal impingement on our sovereignty. From a claimant point of view it becomes harder when you're talking about control over resources."

The resources of Antarctica range from possible oil and hard minerals, to almost impossibly huge blocks of frozen fresh water—icebergs—that several thirsty nations are trying to learn how to harvest, to whales and krill. Long before talking with Beeby, I had watched some of those resources. It had been like floating on an aurora. It was 11 at night in the calm waters of Andvoord Bay in the Antarctic Peninsula. The school of tiny animals undulated and drifted below the *Hero* and on all sides like a luminous orange cloud, glowing in the deck lights. Where the edge of the cloud came near the surface the water sparkled like champagne fizz; the animals were jumping. From just outside the

Shrimplike krill are harvested as feed for farm animals, but so far there is little human consumption.

Photographed from below with wide-angle lens, krill school in coastal waters of the Antarctic Peninsula.

range of visibility came a strange sound: first a break of water like the rush of a wave, eerie in this stillness, then a hoarse, quick breath, then again silence. The breath in the distance was the sound of a minke whale, feeding on the same school of creatures that seemed to carry the *Hero* on its billow of life: krill.

The Antarctic's huge schools of *Euphausia superba*, one of six krill species that live south of the Convergence, are said to be one of the great unexploited resources of the world, a statement with which the baleen whales, who exploit quite a few in just one mouthful, might disagree. Krill is certainly the first of the Antarctic's resources likely to be harvested in large numbers since the 19th and early 20th centuries, when the whales and seals were decimated. Krill is highly nutritious and the animals school so densely that enormous amounts can be caught in short periods, as occasionally intense fishing by Japanese and Russian trawlers has shown. But krill's high fluorine content, its unappetizing lack of taste, and processing difficulties have so far prevented a boom.

The treaty nations took a major step toward dealing with the krill issue by agreeing on the Convention on the Conservation of Antarctic Marine Living Resources, which went into effect in 1982. The convention, like many political actions taken in regard to Antarctica, is unusual—an experiment. "The convention is distinctive if not unique in treating the Antarctic marine ecosystem as a single management area where conservation principles will reflect concern for all species and their interrelationships," writes Philip W. Quigg in *A Pole Apart*, an excellent recent book on Antarctica.

The promise of mineral development in Antarctica is even more elusive. But the notion of vast wealth is presently the greatest threat to the treaty system. The treaty nations seem to agree that the resources hidden in the rocks and sediments of Antarctica are currently too remote to be worth digging out, but the potential has everyone maneuvering for position.

Antarctica is far from barren. Sediments of the continental shelf could possibly hold large amounts of oil. On the Antarctic Peninsula, occurrences of copper, molybdenum, lead, zinc, tin, tungsten and other metals have been reported, and because of the peninsula's similarity to the Andean belt of South America speculation has been fueled. The continent contains iron and coal deposits, and traces of copper, molybdenum, nickel, chromium, cobalt, uranium, thorium and other minerals (the small amount of gold encountered won't touch off a southbound rush).

The Dufek intrusion in the Transantarctic Mountains, a 20,000-square-mile formation that dominates any conversation about the continent's minerals, may contain valuable quantities of iron, copper, cobalt or chromium. The Dufek intrusion's history is like that of some of Australia's richest deposits, and the formation has been compared with famous mineral intrusions in

Biologist Peggy Hamner, on board the *Hero*, holds a handful of krill that were caught in a plankton net.

Montana, Zimbabwe, Minnesota and South Africa. But even this area, studied more than most on a continent that has not yet been seriously prospected, is largely unknown.

In spite of all this uncertainty, the process of deciding how to regulate exploration and development may be as great a test of the Antarctic Treaty system as any actual mining. The convention on living resources slipped past the sovereignty issue with what Quigg calls "ingenious obfuscation" and "calculated ambiguity" in its definition of who controls what water. It is going to be harder to achieve that "bifocal approach" with a minerals regime, which will have to give the miner an unambiguous title to his ore or oil without having to settle the issue that Article IV so ingeniously set aside.

When the issue of developing a minerals plan was first brought up at one of the biennial consultative meetings, in Tokyo in 1970, some of the nations didn't want to talk about it. "The consternation at having the issue raised was so great that some delegations said we can't possibly consider this question at this meeting," commented one diplomat who was there. "The thing that was frightening about it was that this went right to the heart of the sovereignty issue."

The diplomat made his observations during a break in another meeting in Tokyo, the fifth in a series that had developed from those first tentative discussions of minerals 14 years before. The session was called an "Informal Consultation on Antarctic Mineral Resources." Delegates from the 16 consultative nations met in secrecy typical of Antarctic Treaty negotiations, around a very formal-looking square arrangement of tables in a vast room in the Japanese Foreign Ministry building. On the first and last days of the ten-day session delegates were met with a demonstration: a cheerful, international group of environmentalists bearing huge plastic cutouts of penguins and whales, and signs in English and Japanese reading "Save Antarctica" and "Penguins are Watching."

The chairman of the meeting was New Zealand's Christopher Beeby, an energetic redhead whose bright hair and zest both seemed faded after two weeks of negotiation. The pressure on him and the delegates came not just from the environmentalists: the United Nations debated Antarctica in late 1983, with some Third World nations arguing that the treaty created an exclusive club whose members were intent on locking out the rest of the world. The U.N. ordered a study; the first report from it will be debated this fall. To the treaty nations a minerals regime that welcomes all comers might defuse any United Nations attempt to preempt it.

Treaty members are not so worried about a bootleg attempt to mine or drill for oil without treaty sanction—the environment is so severe that any effort needs international help, and no bank is likely to lend money for an operation in which title to the resource is un-

Unlikely sight of Argentine dancers on Antarctic Peninsula may be effort to support sovereignty claim.

clear. But all the delegates believe that it is necessary to have a regime in place before miners and oil companies come pounding on the door. "It is highly desirable that it is done before somebody finds a supergiant oil field," Beeby said. "It's highly desirable that we negotiate in ignorance."

The present state is not exactly ignorance, but the minerals-exploration atmosphere in Antarctica is certainly not overheated, which is why people like John Heap scoff at the notion that the Falklands war was over Antarctic resources. One of the U.S. delegates at the Tokyo meeting was John Behrendt of the U.S. Geological Survey, editor of the 1983 publication *Petroleum and Mineral Resources of Antarctica.* The little book suggests that oil is more likely than hard minerals to be developed in the next decades, but also points out that technological problems in the far south are not identical to Arctic development problems and that "the petroleum industry is not particularly interested at present."

The first stages of getting to know the oil potential of Antarctica are now under way, however: the ships of several nations, including the Soviet Union, Germany, Norway, Japan, France, Australia and the United States, have been doing seismic studies of the Antarctic continental shelf. Although this work is considered well within the treaty's framework of science, in which all data must be shared internationally, it is clearly more than basic science. "The only difference between preliminary stages of prospecting and scientific research of this type is whether the data are public or secret," said Behrendt, who was aboard the USGS Research Vessel *Lee* over the Ross Sea continental shelf in 1984. Some of the nations have confused this issue by being slow in releasing data, Behrendt said. "A little urging is in order."

Interest in protection, and off to Rio

The environmentalists urged the delegates to consider making Antarctica a world park or preserve and solve their problem of minerals exploitation simply by prohibiting it. The world-park concept was brought before the treaty nations in 1975 by New Zealand. "It met with a dull thud," one delegate said. "It isn't practical politics." The delegates expressed more interest —though guarded—in an environmentalist proposal for an Antarctica-wide environmental protection agency that would regulate issues as diverse as tourism and mining impact and might have prevented the present controversy over the construction of a French airstrip near a penguin rookery.

At the end of the two weeks delegates reported progress, but earlier statements that this session would be the key to the negotiations were now applied to the next, to be held in Rio de Janeiro in February 1985. As the meeting broke up and delegates milled around the big room saying goodbye, John Heap of Britain and Fernando Zegers of Chile, two of the men most passionately attached to Antarctica, stood off in a corner arguing animatedly. It was clear the solution was yet to be found. "It is time," Tucker Scully said with patient frustration as he was departing, "for some nations to begin turning over their cards."

John Heap, who seems to draw inexhaustible delight from anything Antarctic, even protracted debate, was optimistic. To him the system may be facing its most formidable test in the present minerals negotiations, but the dispute is also an opportunity to show that Antarctica may even be able to overcome the destructive forces of international politics.

Antarctica, to Heap as well as to scientists, is a grand experiment. The results do not have to be restricted to the ice. Difficulties in addressing matters for worldwide environmental concern that happen within a single nation's area of sovereignty might find a workable mechanism in a regime designed to solve the many complications of Antarctica's mixture of cabbages and claims. "We can, perhaps, make a contribu-

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tion—maybe not to international law—but to international practice," Heap said. "Antarctica is the only place in the world where there is a dispute about whether sovereignty *is* exercisable or *isn't*. Within this context it seems to me we ought to be able to work out something which is novel, which is new."

On the morning of February 11, 1984, at the South Pole, the last representatives of the outside world prepared to leave. The sun was already low; there were only six weeks more of light, then six months of darkness. The little barber pole with the mirrored globe on top that represents the South Pole but is about 100 yards north of it cast a long shadow. Strange thin clouds slipped along just above the horizon like wolves.

In the mess hall under the huge shining dome of the Amundsen-Scott South Pole Station, speeches were made by the visitors, who represented the importance the United States places in this station built at the apex of all Antarctic claims. Ken Moulton of the NSF told the 18 men and one woman who would remain for the eight-month winter that they were select indeed: they were among just 500 people, living and dead, to spend the winter at the Pole. Capt. Brian Shoemaker told them he hoped to drop mail and fresh food to them from an Air Force jet at the peak of winter. The air drop was important, Shoemaker said later, for the U.S. presence.

The engines of the LC-130 were running. The 19 stood together by the barber pole for photographs and popped the cork off a bottle of champagne. Then they began to drift away, some back to their science work—monitoring satellite data, reading particulates in the air, recording radiation from the sun, tracking the echoes of a recent earthquake—others to various vantage points to watch the plane leave.

Visitors to the South Pole get dazzled by the sunlight and dizzied by the thin air 9,300 feet above sea level. They think odd things. They daydream. I thought of experiments and imagination: scientists testing their largest theories; diplomats making new ideas of ownership out of ice and rock. Changes in society, it has been said, must be imagined before they can be made real. Antarctica, with its foundation of science, its mingling of international cooperation and limited sovereignty, its freedom and its declaration of the unimportance of jingoism and absolute possession, allows us to imagine the world at peace.

We got into the airplane. One of the winter residents came in and counted passengers, cursed us all cheerfully in farewell, then got out and went to stand alone by the aviation-fuel pump. The crew chief closed the door. The plane began to get warm. We took off. The enclave below suddenly seemed tiny on the expanse of golden snow. The dome was no larger than the mirrored ball on the barber pole. We made one low pass and then departed straight into the sun, as if planning to take it away.

"Well, it's been a long day," said the copilot. "But we delivered the plywood." It was quiet up in the cockpit ahead of the noise. I looked back at the heart of Antarctica. It blazed white. Life is hard there. It is also strong.

At Amundsen-Scott South Pole Station in February, 16 of the 19 who will winter over gather for a picture.

Two new arrivals in Antarctica—Chilean children who live at Marsh Base—set out to explore their new home.

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By John Canaday

Vienna's Albertina sends treasures on American tour

From one of the world's most distinguished collections of graphic art, 75 inimitable master drawings are chosen for a rare visit

In 1822, at the age of 83, in his palace at Vienna after a good life, Duke Albert of Saxe-Teschen—one of the most fervent of a breed of collectors that flourished in Europe and England in the 18th century—died and left behind about 15,000 drawings and 166,000 prints. Today, as if it had been put out at a kind of miraculous compound interest, the collection has increased to more than 45,000 drawings and more than a million prints, housed in that same palace, now called the Albertina after Albert himself.

Sometime during the years before 1873, when it became official, the name had originated spontaneously. By then, Albert's personal residence with its personal treasures had become a privately owned museum, not always as well managed as it should have been. In those early days it suffered from confused inventories and an appalling loss of documents, but not to such an extent that the Albertina was ever less than one of the world's finest, most comprehensive museums of European art, or even the very finest, most comprehensive and largest of all devoted to graphic art. Nationalized at the end of World War I, the Albertina survived the dark years of subjection during the National Socialist interval—1938 to 1945—by stalling the Nazis from one crisis to the next, and is now more secure than ever in its eminence.

It has also been a remarkably self-contained wonderland, but this year, after nearly two decades of negotiations initiated by the International Exhibitions Foundation, 75 Old Master drawings have been skimmed off the top of the collection for exhibition in America—in Washington at the National Gallery of Art from October 28 through January 13, 1985, and in New York at the Pierpont Morgan Library from March 8 through May 26, 1985.

By happy coincidence the exhibition can be tied to the 200th anniversary of the establishment of diplomatic and commercial relations between this country and Austria, but a goodly number of the proxy ambassadors, including Michelangelo, Raphael and Dürer, were born before America was even discovered. Dürer, one of Albert's favorite Old Masters, is the star of the show with a set of drawings including the famous "Praying Hands," one of several prizes that are being allowed outside the Albertina for the first time, if we accept that the collection was stored in salt mines during World War II. When "Old Master Drawings from the Albertina" reaches New York, the Morgan Library will add eight Dürers from its own collection to the Albertina's selection of ten, making a miniature exhibition-within-an-exhibition that would be an important event without companion drawings by Michelangelo, Raphael, Rembrandt, Rubens, Bruegel, van Dyck and 47 others who can be described as "others" only in such exalted company.

"Albertina" has become so nearly synonymous with "Old Master drawings"—that is, by artists up to the end of the 18th century—that we usually forget that its collection was begun and has been continued without chronological boundaries. Fragonard is an Old Master now, but he was Albert's contemporary—a modern artist when Albert acquired his work. Since Albert's death, the Albertina's search for available Old Master drawings in a now acutely diminished field has gone on concurrently with extensive 19th- and 20th-century acquisitions.

A leg up from the Empress

The original collection was formed after Albert solved a severe initial problem. As an attractive young man and a son of August III, King of Poland and Elector of Saxony, Albert of Saxe-Teschen had all things going for him except one: as his father's 11th child he was short of money and even shorter of prospects for more. This desperate circumstance he remedied by going to Vienna and presenting himself to his father's ally, the Empress Maria Theresa, a woman of warm personality and ruler of the most moral court in a generally dissolute Europe; she was so taken with

Rubens' studies for an Antwerp Cathedral altarpiece were rendered in black chalk touched with white.

Dürer's study of hands displays graphically his own manual virtuosity in the fine art of draftsmanship.

Albert's combination of personal charm and political credentials that she invited him to join the Austrian army. Shortly afterward she consented, with pleasure, to his marriage with her daughter Marie Christine. Although Maria Theresa had even more children than Albert's father—Marie Christine was the second female of 16 siblings—the ruling Hapsburgs were well-enough off that the Empress could assure the young couple's future with gifts of estates here and there and assignments of perquisites appropriate to the couple's high position.

By the custom of royal unions of the day, Albert might have made these conquests as an international adventurer, but by good fortune the marriage was one of enduring true love. Christine shared Albert's interest in collecting, and with plenty of money the joint venture now got under way. The Albertina, in truth, could appropriately bear their conjoined names instead of Albert's alone, and he would probably have liked the idea. Christine is surely the only wife in history to have sent to her husband for his pleasure during a military campaign her latest purchases of drawings, as she did in 1778 when Albert took the field against the Prussians.

An aristocratic Age of Tourism

The aristocrats and gentry of Albert's day were amazingly peripatetic in their search for cultural refinements, considering the hazards and discomforts of travel by coach. The grand tour of European cultural centers, with Italy at the top of the list but with France and northern Europe also included, was prerequisite to any young person's graduation to full membership in the patrician world of inherited position and wealth, or in the world of new fortunes built by entrepreneurs who frequently lived even better. Writers and artists, traveling less elegantly, also crowded Italy. Never before had art had such an audience. The 18th century was the first great Age of Tourism, which would expand in the 19th to include members of the affluent middle class and adventurous bohemians, and in the 20th to include almost everybody, by way of the package tour.

Albert's century was also the great age of the amateur in the different meanings of the word—as one who loves an object, one who practices an art unprofessionally and, in French, in a more esoteric sense, as "one who is disposed to buy." Typical 18th-century collectors had an eye for quality—sometimes expertise—but in a market of opportunity they were also avid for quantity. The trouble with paintings was that only a limited number could be hung even in a palace; the popularity of prints, with drawings trailing as second, came in part because they were easy to store. In 1787,

Osterreichische Galerie, Vienna

Friedrich Heinrich Füger did this scene of Empress Maria Theresa being shown drawings by son-in-law, Albert, after whom the collection is named, and his wife, Marie Christine. Füger was a favorite of Albert's.

Albert's print collection had swollen to 250,000 sheets stored in 717 cartons, albums and portfolios.

Until her death in 1780, Maria Theresa remained benevolently on the sidelines as the collection grew. In a charming 1776 miniature in Vienna's Osterreichische Galerie, Albert and Christine are showing the Dowager Empress their acquisitions brought home from a buying trip to Italy (above). With most of its 18th-century records lost, the growth of the collection can be followed only spottily. It does appear, however, that like most other collectors during that period, Albert and Christine thought of prints as more desirable than drawings. Albert began as a print collector and his surviving inventories list the prices that he paid for prints, but not for drawings.

Author and critic John Canaday writes frequently for SMITHSONIAN, *recently on Watteau in the July issue.*

Drawings have been slow to achieve their proper degree of appreciation by a wide public, and, for that matter, haven't achieved it yet. In spite of phenomenal increases in museum attendance (the Morgan Library, with a high percentage of drawings shows, has pushed up from a shade above 27,000 visitors in 1954 to almost 270,000 last year), the public in general still thinks of drawing as a minor art, either a kind of gestational process in the production of painting, or a second-choice medium employed for subjects not important enough for the full-scale treatment—full-scale in both size and emotional or philosophical content—that painting offers.

Such ideas are sound enough as far as they go; where they miss is that drawings offer special pleasures that almost literally get painted out in more elaborately studied projects. Dürer's drawing of praying hands, as a vivid instance, is a preparatory study for an

Pieter Bruegel the Elder made drawing of "Spring" in 1565. It was part of a cycle of four seasons for which he completed only two. Such drawings continued the venerated medieval tradition of a Book of Hours.

Apostle in a large altarpiece, commissioned for the local church of the Dominicans in Frankfurt; the painting later passed into private hands and was destroyed by fire. Dürer was "the most faithful of Christians," and the altarpiece, known through a copy of the central panel, offers an iconographical scheme elaborated in multiple details. Yet nothing more is needed, as far as the expression of faith and religious fervor is concerned, than this single sheet of the hands. It demonstrates also that a great work of art can survive its prostitution. The praying hands have been copied hundreds of times in sentimentalized versions, have been printed in thousands of fuzzy reproductions, have been turned into mediocre sculpture and even into bookends, yet the purity of the drawing, when one is faced with it, is untarnished.

The craft of drawing is a major factor in the art of painting, but the art of drawing is another matter, independent and offering intimate pleasures that give lovers of drawing a strong sense of fellowship as members of an elitist freemasonry. And drawings offer such a variety of pleasures that a true buff, if put to the test of choosing one great drawing at the sacrifice of a contrasting one, might go to pieces when confronted with Annibale Carracci's "Portrait of a Member of the Mascheroni Family" (opposite) and Rubens' "Studies of Heads and Hands" (p. 62). Beneath its objective record of a certain set of features, the Carracci is animated by an extraordinarily perceptive probing of character. As a technical performance the drawing is a brilliant display (without falsifying fireworks) of the artist's absolute control of his medium, so much so that now, 400 years later, it is easy to imagine the drawing in progress, with each new stroke doing exactly what it is supposed to do as part of a growing whole, never dashed off but always set down with total assurance. At first acquaintance, the controlled force of the draftsmanship lends some of the same self-confidence to the sitter; it is only beneath the surface that a hesitancy, a hint of puzzlement, is sensed in the character of a

young man who is not as sure of himself as he has learned to seem.

This is a complete, self-contained drawing, which happens to have been an unusually careful study for a half-length portrait (in the Gemäldegalerie in Dresden) representing the sitter as a musician with his lute and pen and paper with musical notation, but it can stand as an independent work of art. The Rubens sheet of heads and hands, by contrast, is obviously a page of quick studies (made in preparation for a *Presentation in the Temple*, one wing of an altarpiece in Antwerp Cathedral). The disconnected units—two heads, two pairs of hands—interrupt and overlap and crowd one another in varying degrees of completion on a sheet where haphazard composition—if it can be said to have any composition at all—is more interesting to some tastes than the neat placement of the Carracci because its informality brings us closer to the hand at work.

For most drawing buffs the essential pleasure lies in this feeling of direct contact with the artist. A piece of paper that Michelangelo selected and handled, on which he set his imprint with a few hasty lines from the intimate intermediary of a crayon or pen—which great draftsmen employ less like instruments than as natural parts of the hand—such a piece of paper may be less awesome than the Sistine Chapel ceiling, but it takes us closer to Michelangelo the man than do the vast, carefully studied, intricately interrelated frescoed stretches by Michelangelo the philosopher.

Drawings discarded like old grocery lists

Yet in the early Renaissance, a hundred years before Michelangelo, bits of paper of this kind, bearing quick, fragmentary sketches that had served as notations and reminders, were regarded as expendable reference materials. After they had served their purpose they might be tossed into wastebaskets like old grocery lists—that, at least, is the natural supposition since so few of them exist. Only the most carefully worked-out preliminary drawings were saved, and these not as marketable works of art but as mementos. Artists' studios, after all, had not yet become sanctuaries where inspiration bred masterpieces, but were workshops operated by master craftsmen and their assistants. The shift of attitude toward drawings as collectibles parallels the transformation of the status of artists from respected supercraftsmen to idolized international figures like Michelangelo, to whom the sobriquet "*Il Divino*" became attached. Any few lines he might set down on any bit of paper became worth saving.

And worth saving they were indeed. His most hurried, abbreviated, and fractional notations of the nude body or parts of it are charged with the opulent and vibrant physicality that he worshipped to the point of sanctification. But we owe the preservation of such bits and pieces less to their innate character as works of art (modern Expressionism has helped us to recognize that) than to their status, at the time, of souvenirs. The importance of more detailed studies, like the famous seated male nude in the Albertina (p. 68), was weighed by carefulness of execution. In this particular example, Michelangelo metamorphosed a no doubt heavily muscled model into a muscle-bound giant and then remetamorphosed the study into one of the Sistine Chapel ceiling's 20 luxuriantly fleshed but supple *ignudi*, the nude youths whose pagan spirit in their conspicuous but undecipherable role in the ceiling's philosophical scheme continues to challenge art historians' powers of rationalization. (This one is located just to the left and above the Persian Sibyl, and just below the figure of Adam in the "Creation of Man.")

Dürer was the first artist to attach great importance to his drawings as works of art worth signing and dating—one manifestation, perhaps, of his belief that the

Annibale Carracci's Baroque "Portrait of a Member of the Mascheroni Family" was a study for oil painting.

Charming little drawing, 9 x 13.8 inches, sums up a huge beast in a small space. It is by the great Rembrandt, dated 1637, titled "An Elephant."

Massively muscled, dramatically tense Michelangelo male figure is in red chalks heightened with white.

artist's gift of expression was God-given and never to be taken lightly. Beginning with a self-portrait at the age of 13, when he was already a mature draftsman, his drawings are at least as important as his prints and paintings in the total body of a lifework that is by second nature a chronologically organized spiritual autobiography.

Rembrandt's life can be followed less philosophically but more intimately in his nearly 1,400 drawings. His wife, Saskia, his son Titus and the faithful housekeeper Hendrickje Stoffels (who also served as models for magnificent paintings) appear in affecting, quick poses. Like family snapshots at a sublime level, these drawings show the people he loved as they ate, dozed, went about all the inconsequential details of living from day to day. Or he takes us into the countryside where paper and ink become earth, air, light and water that we can smell and feel.

In another vein, Fragonard, an aging man besotted with love for his much younger sister-in-law, writes her an open love letter in "Marguerite Gérard Sketching" (opposite). Whatever else it is, great art is a form of communication—whether witty, profound, objective, mystical or whatnot, but always a communication between artist and observer. And it is never more direct than in a great drawing.

This lyrical drawing by Fragonard shows his sister-in-law, Marguerite Gérard, sketching the Holy Family.

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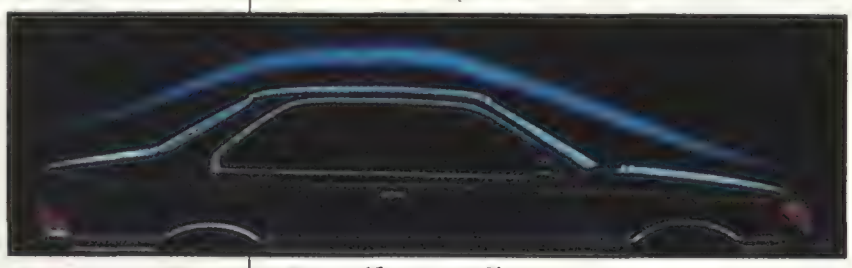

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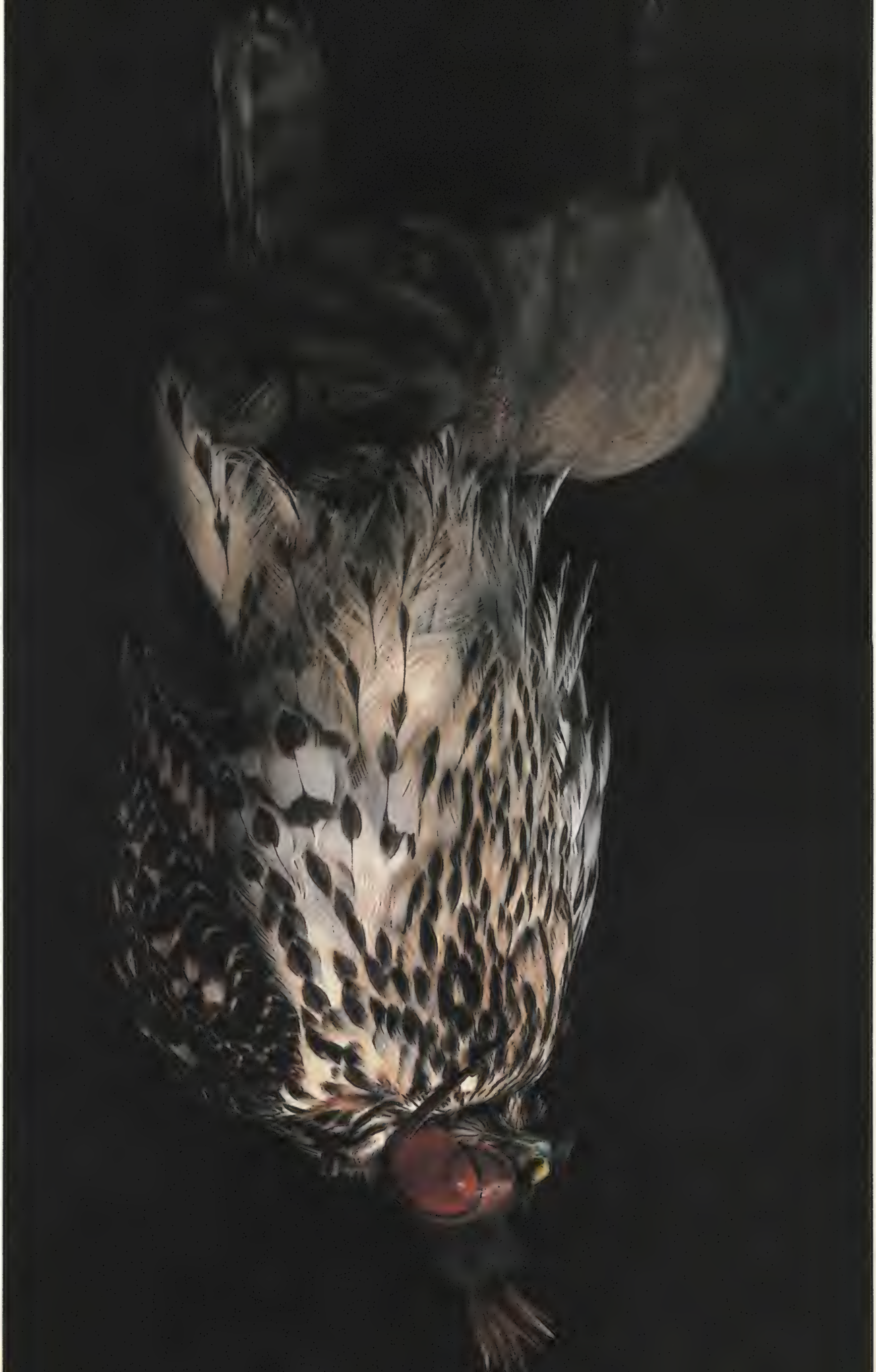

By Stephen Bodio

The ancient art of falconry is still flying high

After training birds and going afield, it is easy to give your heart to the hawks —as reflections by a falconer reveal

Raised aloft by handler, a peregrine falcon still in molt experimentally spreads its long wings.

Today, there is no practical reason for falconry to exist. Although it originated as much as 4,000 years ago, perhaps among huntsmen bent on increasing their food supply, the only people who seem to have ever made a real economic success of falconry were the Kirghiz of Central Asia. They caught desert foxes for their skins, and used huge golden eagles so fierce that they sometimes vented displeasure at a missed kill on the falconer or his horse.

Falconry, at any rate, rose from obscure beginnings to become the sport of medieval Europe's aristocrats. Kings traded falcons for prisoners. Knights took their favorite birds to church so often that there were rules barring them, although some ranking churchmen were not above bringing in their own birds. A few couples even got married with falcons on their fists, medieval precursors to those modern couples who take their vows skydiving or underwater.

During this period yeomen were allowed to have "ignoble"' short-winged hawks to fly from the fist at small game in hopes of providing food for the table. The French even came to call the goshawk the *cuisinier*. But no commoner was allowed to own a "noble" long-winged falcon. Falconry became so deeply identified with medieval romance that if anyone thinks of it today, it is usually in connection with jousting and tournaments and noble ladies with ice-cream-cone hats. Yet it remained the pastime of princes well after the medieval period. Henry VIII, for instance, almost drowned while chasing a hawk (his pole broke while he was vaulting a ditch and he stuck headfirst in the mud). Falconry never died out in Europe, enjoying a short golden age in England toward the end of the 18th and the beginning of the 19th century.

A fierce but high-strung goshawk, like many tame hawks, wears a hood to keep it calm on the hand.

The most eccentric falconer of that period was one Colonel Thornton, perhaps the last man until recent times to understand the gyrfalcon. According to a contemporary journalist, Thornton used to go out accompanied by "fourteen servants with hawks on their wrists, ten hunters, a pack of staghounds and lap-dog beagles, and a brace of wolves." He had a mistress who posed as his wife and was also a serious horsewoman, one accomplishment being considered almost as risqué as the other. He bet on her in races and engaged in public brawls with her competitors in the grandstand of the racetrack at York.

Sadly, the reign of Victoria and the spread of such vices as respectability and the shooting of reared pheasants conspired to make characters like the Colonel seem a little primitive. Falconry did survive in England, of course. But its practitioners narrowed their focus mainly to the pursuit of Scottish grouse with the peregrine; the few other kinds of hawking practiced were regarded as inferior. It has taken about 120 years, the vast public lands of the American West,

Falconer Jim Skidmore and Bougain, his 15-year-old peregrine, give each other some serious attention.

Airing hawks in the early dawn, Skidmore keeps one on perch (background) while he strolls with Bougain.

With falcon on fist, Skidmore deftly uses his teeth to tighten up leather traces on the bird's hood.

a new bunch of dedicated birdmen, and a little bit of science and technology to give us a new golden age of falconry. I've been involved with falcons and falconers for 20 years, and I never cease to be amazed at the extraordinary commitment of the men who care for them, and the deep bonds formed by the training and flying of birds of prey.

To understand falconry, you must understand the nature of the relationship between man and bird. Dogs are man's servants; horses are basically classy, self-willed transportation. A hawk is your mistress. "First the hawk, then the horse, then the hounds, then and only then the humble falconer," goes the old maxim. The education of the falconer is a chastening process. The bird never gives an inch—you can coax it but never bully or even discipline it. Your purpose in the field is to assist the bird, your reward the companionship of a creature that can disappear forever over the horizon in 15 seconds flat. And the closer your falcon approaches the behavior of a wild bird the better, as long as it approves of your company.

Of course most people assume there is a single, sav-

His pointer, Jake, moves ahead with nose to ground. Afield, man, bird and beast form basic falconry team.

A hunting trio at ease in the field: falconer relaxed, dog alert and bird of prey apparently bemused.

agely predatory, hawkish nature, while falconry in fact makes use of several kinds of training and three groups of predatory birds with personalities as different as, say, cats, dogs and bears.

First come the true falcons, since all hawks are not falcons but all falcons are hawks. Falcons proper, spectacular and long-winged, have always been looked upon as the choicest birds of prey. At rest they look a little heavy, with broad shoulders and round faces, like overgrown parakeets. The falcon of falcons is the peregrine. Perhaps the handsomest of all, it is compact and athletic. An adult peregrine seems shy, even phlegmatic. But when peregrines leap off the wrist, they are transformed into aerial masters of the long chase and the 200-mph power dive.

For Americans the yeoman's choice of these long-wingers is the Western prairie falcon. These birds are hardy and weather-resistant, somewhat rough-and-ready in appearance and can take a wide range of prey. They would be ideal for falconers except for their temperament. Some prairies display a mixture of skittishness and aggression that would drive any novice falconer out of the sport. (The worst-tempered hawk I have ever had was a 14-ounce male who used to fly clear across the yard to grab my leg.)

The second group consists of the accipiters. They have long supple bodies, long flexible tails, feet like rattraps, and short wings rounded for maneuvering under the forest canopies where they live: an accipiter cannot fly flat out at more than 60 mph as a peregrine can, but it can turn on a dime.

One bird frequently used in falconry is the goshawk, great after game; the *only* hawks, in fact, with any real, practical, food-producing value. But goshawks can be the most maddening creatures—aloof, brooding, schizoid, delicate, murderous and difficult to train. Fearless in the field, they nevertheless fear people, dogs, cars and private phantoms.

Last to come are the buteos, those short-tailed, broad-winged hawks you see soaring in lazy circles on afternoon thermals. They tend to be heavy and slow and—by hawk standards—rather easygoing. The most common is the red-tailed hawk, which tends to be the Chevy sedan of falconry. The redtail is unspectacular at the hunt, but hardier, more reliable and infinitely more agreeable than any accipiter. Also smarter. One of my favorites was a male redtail named Cinnamon. During our years together he never learned that potato chips were not hawk food, and he once caught, in addition to much legitimate game, a full plate of sliced turkey from the center of a Thanksgiving dinner table. Over the years Cinnamon created a complex bond between us, and one not only based on hunting afield

Stephen Bodio is a writer and master falconer. This article is adapted from his new book, A Rage for Falcons, *published by Nick Lyons Books/Schocken.*

As part of the training, an English falconer swings a feathered lure in order to call his bird back to him.

but on laughter and, yes, on some kind of friendship.

Beyond such differences of species, falconers distinguish between two basic groups of hawks according to the way they are flown at game. The smaller group, and by tradition the noblest, are hawks of the lure, so known because they are trained to return from on high to a swinging lure (right), and because once released they circle hundreds of feet above the falconer, diving on their prey only when it is flushed by a dog or a man. All falcons are hawks of the lure. The others, mostly accipiters and buteos, are called hawks of the fist because they fly from the fist pretty much straight at a fleeing bird or rabbit.

Naturally each group is trained somewhat differently. But in either case the training is the most important and the most frustrating part of falconry. It can be defined as what goes on between the time you first get a hawk in your hands until the time when you go afield together and forge a bond that allows you to aid each other in the hunt. You must always remember that you don't teach it to kill; you teach it to return—and to accept you as a servant. Often, the hunting hawk is a she because the female is generally one-third larger than the male and can capture larger quarry.

If you're dealing with a freshly caught adult goshawk, you go into the hawk house where your new captive sits in the dark, leashed by a short leather thong to her perch. As you approach she will tighten down every feather, except for those that frame her head and flare in a sunburst around her staring eyes and half-open beak to make her look savage rather than terrified. Then she is off the perch, wings beating in what is known as a "bate."

Then up again, hissing defiance, wings half-spread. You bring your fist up with unbearable deliberation behind her ankles, where your touch makes her involuntarily step back to your glove. She realizes you are touching her and she bates again. You unfasten her leash with your ungloved hand as you swing her clear of the perch and wind the leash behind her back as she dangles upside down. You push her gently up until she lies across your glove as if paralyzed, feet hanging, and rock your fist until she scrambles to her feet. For a moment she stands erect on your glove with a look on her face that resembles disbelief. Then she may hurl herself off again, to hang, to be helped up, and then bate again, sometimes several times in a row.

It can take anything from a few hours to a few weeks to get over this harrowing stage. If you can anticipate a bate and forestall it by a movement, an offered tidbit or even by stopping the session, both you and the hawk will be better off—the hawk because action causes and reinforces fright and flight as well as the other way around. The best course is not to keep the bird constantly on your fist. Far better to spend a few minutes every morning and evening doing pleasant things like feeding your charge a chunk of fresh meat.

For the first day or so she may not eat, though she'll want to. She will shift her feet uneasily, cock an eye downward, perhaps even open and shut her beak several times in a way that suggests that her mouth is watering. At such a moment the temptation to sort of

Tame hawks are always wild at heart and sometimes simply ignore handlers' signals, to fly away forever.

point to the meat, to indicate that it's there, may be overwhelming. But if you do she'll likely bate again. Even worse than making a hand motion at the level of her feet is bringing your hand up garnished with a tidbit. A goshawk may grab you. Any new-captured hawk, unaccustomed to seeing meat glide in at beak height, will rear and hiss and, at last, bate. And ignore the meat for many more minutes.

At the end of the second day you may think that she's starving. (She won't be.) Knowing that hawks are supposed to be shy of the human face, you hold her at chest level and fix your eyes at the opposite wall. You wiggle your fingers inside the glove that she stands on. She dips her head slightly; perhaps the stirring beneath her feet reminds her of a not-quite-dead prey. She dips it again. Is she feeding? You can't see. You lift your hand—just an inch—and lower your gaze.

She bates.

The whole process starts again. This time you hear the sticky meat tearing. You raise her up so slowly that you can barely control the movement. Her head comes up. You hold this tableau for a very long 30 seconds. She takes another bite, then stops again.

Infinitely slowly, you reach out your bare hand and tweak one of her toes. She bites at it, then bites again at the meat and begins to feed. Avidly, voraciously, as though she hadn't eaten in weeks. You return her to the perch just as she finishes. You ease along at 16 rpm, smoothing every muscular twitch and fighting an irritating urge to jump and yell. She steps easily to the perch in an absentminded way, as though she had done it a hundred times before. She "feaks" (i.e., strops her bill on the perch) and rouses until she looks like a ball of feathers, shaking them down with a clatter like a wet dog. You slip out, grinning happily.

But next day you may have to do it all over again.

Then, suddenly, she will begin to look forward to your visits. In her world, you mean food and perhaps a certain release from boredom. Now you begin to jump her to the fist. This part of training can edge toward comedy. The proud bird *wants* the food, but for some reason she does not want to fly. She sidles back and forth on her perch, stamping her feet, craning her neck forward, again and again. She half-spreads her wings; yes! this time she'll surely go! But she furls them and begins her crazy dance again.

Then, so suddenly she takes you both by surprise, she's off the perch. If it's your hand she lands on she may bate off in horror at her own audacity. Sooner or later, though, she will begin to feed. *She has come back to you.*

It's easy to get used to a miracle. In two days you both treat the whole process as a routine exercise. You whistle, she flies to the meat on your fist and feeds. You practice your routine, doing it two or three times in a row, but you don't repeat it so many times that she gets bored. And you call her to the fist from farther and farther away.

Falcons must learn to "wait on"

Eventually, training has to move out into the field, to the hawk's familiar surroundings, a world of color and space and, above all, distractions, into a larger arena where more commands and skills are laid on. Hawks of the fist, like my goshawk, learn to take game directly. But a falcon destined for large, strong-flying, open-country game must learn to "wait on" (to circle) not only precisely, but most of all *high* above the falconer. I know of no one more expert at teaching birds to wait on than Jim Skidmore, and a day I remember spending in the field with him not long ago perfectly summed up the joys and risks in educating falcons.

Skidmore, 40, lived in New Mexico in those days, though he has just moved to St. Louis. He owns a 15-year-old peregrine, three pointers, including a tireless male named Jake, and the complete works of Elbert Hubbard, author of that onetime grammar-school classic, *A Message to Garcia*. Skidmore's elaborate training waltzes, conducted on 11 unfenced sections of

Caught on the downstroke of powerful, long wings, a prairie falcon makes a low-level pass over open field. Some falcons may fly 90 mph on the flat, and can do more than twice that when diving on their prey.

Some illegal buying and selling—but how much?

The endangered peregrine falcon and other North American birds of prey are elaborately protected by a network of federal and state laws. It is illegal, of course, to kill them. It is illegal, except with special permits, to import them or sell them overseas. And it was illegal to sell them in the United States until August 1983, when the basic law was modified so that a few captive-bred, specially-banded birds could be sold by licensed falconers.

Since falconers helped create these laws, it was a shock, last June 29th, when the U.S. Fish and Wildlife Service, with considerable fanfare, announced that after a three-year investigation its "agents had exposed a multimillion-dollar international black market in federally protected birds." The government statement also noted that "over 30" individuals were to be indicted for "illegal commercialization of birds of prey," with 80 felony charges pending.

As these cases proceeded to court a terrible uproar arose, with conservationists and falconers hotly commenting on the case. The National Audubon Society, in its publication "Audubon Action," exaggerated the government charges of wrongdoing and, noting that "the sport of kings" had become "the hobby of felons," it insisted all the trouble was due to changing the law to permit *any* sale of birds of prey.

After examining the indictments, the North American Falconers Association got off a letter protesting the government's statement and methods of operation. Among other things, NAFA spokesmen claimed 1) that virtually all the alleged offenses occurred before August 1983, so that permitting limited sales of the birds had little to do with them; 2) that much of the government work was done by one "sting" agent, a falconer who tempted acquaintances to various large and small infringements of the law; 3) that the informant's efforts had been reported to the authorities no fewer than eight times by falconers so that he, at least, would soon have been out of business without government protection; 4) that the government had illegally taken birds from the wild to provide temptation to falcon buyers at home and abroad; and 5) that there was little or no evidence of any multimillion-dollar international trading ring since the maximum total amount of money that allegedly changed hands over a three-year period was no more than $180,000. NAFA people also claimed that only two Americans were charged with actually selling a bird of prey.

The government insisted that the proceedings would ultimately justify all its claims, but was unable to discuss specific cases in detail on grounds that they were still in litigation. The whole mess would certainly take a good deal of legal time to sort out. Meanwhile, though it appeared the government had overstated its case, it was also clear that some major and minor infringements of state and federal laws had occurred, most often involving the transportation of birds across state lines. But if the current laws seem complicated, or unnecessarily refined, it is essential to remember how important protection is. As recently as 20 years ago, birds of prey were shot legally as predators by farmers and hunters, and some states even paid shooters a bounty for their work.—*Ed.*

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grassland west of Albuquerque, are more elegant and demanding than most people's hunts.

These drills can be surreal pageants. On a single Saturday last October Jim, Mark Slifka, my friend Betsy Huntington and I took out three birds in different stages of training. One was a young gyrfalcon-prairie-falcon hybrid in his first season, named Cedric. The second, Mark's two-year-old female prairie falcon, was a sort of graduate student taking a refresher course after the summer inactivity of the molt. The third was Jim's ancient peregrine, Bougain, who had finished her molt just three weeks before and hadn't even flown since March. We came through the gates into the open grassland at 8 A.M., an odd Western safari composed of three pickup trucks full of dogs, birds and radio equipment for getting a fix on errant birds. In the gray fall morning the immense brown grassland looked like the sea, rolling and free of landmarks. Only the distant mountains gave us any scale.

After we stopped we weren't left much time to contemplate the scene. Jim was already unloading his unique implements from the recesses of his camper. The interior of Jim's pickup is a stern admonition to those of us who lead incurably sloppy lives. A lot of people make their own hawk "furniture"—perches, leashes, hoods. But very few also make perfectly engineered fittings and boxes to hold them. As you look into Jim's hawk wagon you see a sturdy traveling perch on the left; stacked wire boxes up at the head, each containing an eager but quiet bird dog; live-bird boxes; a folded mahogany game table in its own holder; and finally, a drilled two-by-four into which the hawks' block perches fit as though into sockets.

Jim took three block perches into the lee of the pickup truck, rammed their spikes into the soft earth and set a hooded hawk on each. Eventually all three birds will be engaged in real hunting, with wild grouse as their worthy quarry. But in the limbering-up and training period we use game-farm chukar partridges, released when the falcons are waiting on properly. Providing prey is "serving" a falcon.

Each bird has to be handled differently. By now we had been flying Cedric, the hybrid, and the prairie for several weeks and knew their foibles. Cedric, for in-

Young goshawk is attached to hand by jesses and swivel.

Red-tailed hawk is fine hunter, friendly and easy to train.

Gyrfalcon is the largest and the fastest of the falcons.

stance, liked to race around at low altitude. You had to curb your impulse to serve him until he made an effort to go up. The prairie needed no help with the mechanical part of flight training. She had taken many head of game last year. She would climb, with or without thermal updrafts, until she was a speck in the sky, and keep an eye on the dog. Her problem was that in the off-season she had developed a lazy habit of searching for updrafts by drifting downwind from where the dog was working and pointing the birds. As a result she often waited on too far away to hit her quarry after it was flushed. Bougain, in contrast, was wise, but she was still a little fat and very out of condition.

As Cedric was still being a little early-morning uppity, we decided to fly the prairie first. We took a strong partridge and what I can only describe as an artful artificial tussock with a 30-foot string attached and hiked out from the trucks for about half a mile. Jim directed the placement of the "game-bird set" on the crest of a two-foot ridge, placed the chukar under it, then stretched the cord out so that the bird would be placed between the dog who pointed it and the person who eventually flushed it into the air.

We returned to the truck and released Jake. He bounded upwind with unnerving enthusiasm, covering hundreds of yards with each cast, head low, tail high and quivering, nose drinking scent. In a moment his casts shortened like a compass needle wobbling to magnetic north. He ran a few steps closer, dropped his head, vibrated, stopped and pointed the chukar. Only an almost invisible tremor in his tail betrayed the fact that Jake was not a monument to the perfect point.

Mark faced his prairie into the wind. She looked around as though she were bored, then suddenly leaped into the air. Just as we feared, she curved downwind until she was almost out of sight before beginning her climb. We watched her circles through the binoculars. "See that?" asked Jim, always the theorist. "She was feeling too lazy to climb, so she's found herself a thermal. That's OK, as long as she comes back over." But she showed no desire to return. We could see her shuttling back and forth in the distance like a bead on a string. She had no desire to go astray; in her eye and her mind she commanded the air around the dog's point. But although she could see the flush perfectly well, and would probably even manage to kill the game-farm chukar we had planted, a wild grouse could probably beat her from that position without even getting winded. Mark walked in close behind Jake and twirled his glove, the falconer's signal to "come in over." She continued her short circles.

So we waited. And waited. Finally, after a very long five minutes, the falcon moved in, about half the distance, and began circling again.

"Close enough," said Mark. He twirled the glove one last time, jerked the string and hollered "Haaah!" The chukar flushed with a cackle of fright and buzzed off downwind about ten feet above the ground. Mark's bird of prey slanted down in a long flying stoop, crossed the bird head-on, tagged it hard enough to jerk loose a clot of feathers, and continued flying. As the chukar hit the grass, the falcon turned, dropped and

The graceful peregrine is the most famous and acrobatic.

The prairie falcon is hardy, takes a wide range of prey.

Harris hawk, from Southwest, is even-tempered, efficient.

fell to the ground, where grass hid the end from us.

Next came Cedric. When we released him he buzzed around like a big black bat, "cutting daisies" with his wings, skimming the ground, nearly giving the dog a haircut in a run that would have flushed any wild bird holding in front of the point. When none of his antics produced a reaction he swung out a few hundred yards and began to climb like the gyrfalcon he resembled, clawing his way up at a sharp angle. When Jim twirled his glove he came in at about 400 feet, soaring on the wind like a kite. His first stoop was a textbook marvel, vertical and close-winged, but he missed the quarry and had to overhaul it from behind, using his gyrfalcon speed, and rode it to earth. We gave him a B plus.

We put out a third set and again turned loose Jake, who soon made another classic point. Jim brought out the old peregrine and eased off her hood. She was a big bird, much wider across the shoulders than either of her fellow hunters, with an almost metallic sheen to her feathers. She looked placid and domestic. Jim faced her into the wind. She tightened her feathers, gripped down on his glove and rowed a few practice strokes. Then she stopped, relaxed and puffed herself up very slowly. But instead of the expected rouse she gave an irritable *kack* and closed them up again. Jim stood there, silent, head bowed. She jumped from his fist and lumbered through the air to a point about a hundred feet away, where she lit on the ground.

I figured that any hawk needed exercise after the molt before she could fly with any ability at all, and I was puzzled by Jim's insistence to the contrary. He was walking away now. Was he angry, or embarrassed? He passed the hawk without giving her so much as a look. After a moment she roused where she stood, bobbed her head in Jim's direction and took off again. She flew past him and lit on the ground. He kept walking. The third time she took off she passed him, still flying slowly, and continued on. When she got about a quarter-mile out she began to climb in big circles, pumping hard. Jim came back grinning. "Let's give Maggie a little flushing practice."

Maggie is my young springer spaniel. Betsy led the dog to a position opposite the set from Jake. I found the string and handed it to her. It took me a moment to locate Bougain. She was soaring, no longer climbing, 700 or 800 feet above but still a quarter-mile downwind of us. Jim stood watching, holding his glove down by his side. "That's amazing," I called, acknowledging her ability. "Aren't you ready yet?"

He shook his head. "She's just resting. She'll go up a *lot* higher than that. And come in a lot closer. Whatever you do, *don't flush yet.*"

Sure enough, in a moment she commenced to climb again. At a distance hard to estimate but well over 1,000 feet, she stopped circling and soared forward for the second time. Now she was nearer to us. She climbed two more aerial steps while I watched, openmouthed. By the time she reached the second "bench" she was no longer in clear sight from the ground, just a dot going in and out of thin clouds. Keeping my eyes on the speck, I raised my binoculars. Through them she was just perceptibly bird-shaped. Without dropping my gaze I hollered to Jim: "Now?"

He was swinging his tracking antenna now, having lost sight of her when he checked the point, and twirling his glove.

"How about when she gets just exactly above you?"

Betsy muttered, "I haven't been able to see the bird for five minutes."

"Just pull the string when my binoculars go past vertical." The hawk was coming forward even as I made the suggestion. "Now!" Betsy tugged the string. I looked down in spite of myself even though I knew I'd lose sight of the bird. The spaniel ran in at the chukar, which clattered into the air. "Haah! Haah!"

And I looked up to see a dot dropping, becoming an inverted heart, a diving bird. The wind screamed through her bells, making a sound like nothing else on Earth as she fell a half-mile through the clear autumn air. At the last moment she turned parallel to the chukar's line of flight and hit it from behind with a solid *thwack*. The air filled with a blizzard of feathers as the chukar fell limply from the sky. The falcon made a delicate curve in the air, turned and fluttered down on the fallen prey like a butterfly. Jim was grinning as he walked to the hill. "And that—" he tossed back over his shoulder, "that's just her *first* flight."

Just airborne but still hovering, a peregrine seems to share a moment of truth with its exhilarated owner.

The writer quoted above is a recent kindergarten graduate.

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By David-M. Schwartz

Duncan Hines: he made gastronomes out of motorists

He recommended more than cake mix; in fact, this eater-author's name was once engraved on the biting edge of the American appetite

When it comes time to eat, the long-distance motorist has a problem: dining and driving have never mixed easily on the American road.

Descending the exit ramp of today's interstate highway and staring at the all-too-familiar neon logos of Fast Food Alley, it is difficult to imagine—as we implore our digestive systems to tolerate yet another assembly-line hamburger or microwaved imitation of a grilled-cheese sandwich—that things were once worse. A few years ago, the assumption that highway dining had reached rock bottom launched me, stomach first, on the road to writing guidebooks that would address the traveler's dining dilemma. But when I found myself following in 50-year-old footsteps, I began wondering about the status of roadside restaurants in the 1930s.

The case was clear. Where we now find franchised deep-fry dens and burgeries stamped out of plastic and glass, then we might have found unkempt roadhouses where adequate refrigeration and sanitary practices were no more predictable than visits from the health inspector. Where we scorn the decorating clichés and hospital-room sterility of Ye Olde Theme Restaurant, 50 years ago we would have held our breath as we faced a meal of undercooked pork chops and decaying salad amidst a decor of greasy walls and flypaper. Where we now may eat badly, once we might have eaten miserably—or not at all.

And so, when a waggish, surprisingly unpaunchy salesman working out of Chicago published a pocket-size guidebook to good restaurants along the nation's highways in 1936, the demand was such that he quickly emerged a savior to the motoring public. Before World War II dried up the supply of gasoline for recreational pursuits, *Adventures in Good Eating* became a fixture in automobile glove compartments, and when wartime gas rationing was lifted, bookstores nationwide were swamped with requests for the latest edition of the little red paperback. For two decades, the name of the author, Duncan Hines, was etched on the biting edge of the American appetite.

Traveling 50,000 miles a year for the sole purpose of dining (sometimes six meals each day), the eater-author was America's best known and most purposeful vagabond. His home office received (and answered) between 150 and 600 letters a day from readers applauding (and occasionally booing) his taste, many nominating new places for him to exercise it. In the late 1940s, Roy H. Park, an upstate New York businessman, conducted a survey to identify the best person to

"When Duncan Hines began taking his palate on tour, rural backwaters were hardly restaurant-rich."

Illustrations by Lane Yerkes

"Checking the back door, if his nose could tell what had been served two days ago, he got back in his car."

endorse a new line of food products. He found not only that Duncan Hines was associated first in housewives' minds with good food, but that he was better known across America than Vice President Alben Barkley—even in Kentucky, home state of both. Within three weeks, the new line of Hines cake mixes swallowed 48 percent of the market.

I cannot deny a soupçon of sadness in knowing how fully the endorsement has since displaced the endorser in our culinary consciousness. The first time I was compared to Duncan Hines, I was flabbergasted—why, I had had nothing to do with cake mix! But my response was predictable: to today's generation of supermarket shoppers, the man behind the Duncan Hines brand is no more real than Aunt Jemima, Betty Crocker or Lady Kenmore. It leaves an ironic aftertaste to the biography of America's gastronomic Baedeker, a champion of traditional American cooking and fresh, native ingredients.

Duncan Hines never set out to become the nation's number one taster of chicken and dumplings. It was not until age 56 that he even considered publishing his accumulated knowledge of where to eat, and even then it wasn't the pursuit of fame or fortune but peace and quiet that turned him into a guidebook author.

Prior to 1936, public relations was Hines' profession; eating was merely a hobby. He designed, wrote and produced corporate brochures, driving all over the country to serve his clients. On the road, food was his greatest love, but it often went unrequited: Hines found the majority of wayside restaurants insufferable. "The library paste served as gravy in short-order places was a personal insult," he later recalled. Never one to take an insult sitting down, the connoisseur's immediate response to a serving of soggy French fries and battleship-gray beef was to stand up, pay the bill and walk out.

Filling notebooks as well as themselves

Hunger and dyspepsia were hard taskmasters, and the peripatetic gourmand developed a skill at sniffing out the good restaurants. He sought recommendations from other motorists and greeted businessmen with the question, "Where's the best place to eat?" He kept lists and took notes. On weekends, for pleasure, Hines traveled with his wife and the two of them made a game of filling the notebooks as well as themselves. Sometimes they stretched their gastronomic safaris to 500 miles in a weekend, stopping two or three times a day for waffles, sausage and eggs, and at least as often for fried chicken, baked clams or black-bottom pie.

But there was one problem: word was getting out. Duncan Hines, printing salesman, was becoming known as Duncan Hines, restaurant sleuth. A growing

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"Hines fiercely guarded his anonymity by using a 20-year-old photograph of himself as a natty young blade."

contingent of Chicago businessmen wouldn't drive out of town without first consulting their expert. "I'm off to Nashville—where should I eat?" the caller wanted to know. Or, "What's cooking between here and Boston?" Usually Hines had the answers: an elderly woman of reduced circumstances ran a superb tearoom on the road south from Louisville, perhaps, or a couple who grew all their own vegetables did wonderful things with sauces at an unassuming inn near Syracuse.

Then the press picked up his scent. A story about the where-to-eat specialist appeared in a Chicago newspaper. That day, his apartment phone started ringing off the hook. Executives bound for conferences, musicians going on the road, honeymooners choosing their destination—perfect strangers all—called for advice.

In the fall of 1935, the beleaguered salesman had an idea for silencing his phone: he wrote a short encomium to the quest for superior restaurants and printed it on heavy stock with a list of 167 favorite spots in 30 states. "Adventures in Good Eating," he called the card and, "with a feeling of mingled temerity and pleasure," mailed off a thousand copies as Christmas greetings to friends, associates and anyone who had pestered him for a restaurant recommendation.

Temerity it must have been, and disaster was the result. Instead of stopping the calls, the Christmas card sparked a following of its own. Recipients wanted copies for their friends. And friends of friends phoned in their own requests. And so, early the next year, partly in self-defense, Duncan Hines decided to expand the card into a book, adding more restaurants and a one-dollar price tag. Not until then, when his unique knowledge had become his liability, did he even consider the commercial possibilities that were to erupt into a quarter-century publishing phenomenon and make "Recommended by Duncan Hines" a household—or, more aptly, a car-seat—expression.

The history of restaurants in America is not the history of American cooking. As early settlers brought their pots and pans across the continent, their primarily Anglo-Saxon and Continental cookery diversified into distinctive regional cuisines, each an unselfconscious reflection of the area's people, climate and available foodstuffs. But America's new foods, whether New England quahog chowder or Indiana persimmon jam, were essentially a gastronomy of the home. Immigrants of Anglo-Saxon descent had little desire, or perhaps little aptitude, for running public eateries. What restaurants there were (and there were few, even in the major cities), were unimaginative and banal. Before the middle of the 19th century, eating out was strictly a burden necessitated by travel, and almost all American restaurants were in hotels or inns.

The job of elevating the status of American restaurants was left to those willing to meet the challenge—namely, the European immigrants who arrived in waves beginning in the 1840s. In the large cities that received these new Americans, there flowered a golden age of restaurants, manned by the available talent from abroad and fueled by the restless wealth of the newly rich. For more than half a century, New York's Swiss-born Delmonico family was the pacesetter, trailed hotly by other restaurateurs in New York, Boston, New Orleans and Chicago who produced for their impressionable clientele the loftiest haute cuisine and served it in elaborate surroundings. Even after the era of conspicuous consumption collapsed in the sober years of World War I, urban restaurants serving European dishes, especially French, set the standards observed enviously and emulated in the provinces.

By the time that Duncan Hines began taking his palate on tour, the financial potential of serving food to the public had succeeded in dissolving ethnic and geographical barriers to the restaurant trade. Rural backwaters were hardly restaurant-rich, but entrepreneurs—whether or not they could cook—had managed to fill in many gaps on the atlas of American eateries. While a few truly indigenous dishes and what was vaguely (and wrongly) called "home cooking" managed to sneak onto a few menus, it remained chic to serve boeuf bourguignon, sauerbraten and their Con-

David Schwartz has written about Morris dancing and weather vanes for SMITHSONIAN*; he is co-author with Neal Weiner of* The Interstate Gourmet *guidebooks.*

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"I don't eat all the stuff, but honestly, this time
I kinda stretched my belt because it was mighty good."

tinental cousins—or at least Americanized versions thereof. For those who found Continental cuisine effete, there emerged a homogenized American cuisine based on a seemingly limitless appetite for steak.

Hines, who was born in Bowling Green, Kentucky, in 1880, spent the most memorable hours of his childhood at his grandmother's bounteous table. "As a boy," he once said, "the only thing I was really interested in was eating." What he ate was as genuinely American as apple pie—and pecan pie, fresh pork sausage, country ham, candied yams, turnip greens with fatback, beaten biscuits and cornbread. His tender affection for regional dishes transferred easily to other parts of the country when, in 1898, he went to work as a clerk for the Wells-Fargo Express Company, a job that took him to outposts across the West.

"Plain American cooking is the best in the world—and it can also be the worst," Hines declared (many years before he ventured abroad to taste any other). He railed against inns that denied their geography in order to serve "as up-to-date a dinner as you can get in New York." When asked how he made his menu selections, he snapped, "I steer clear of hashes and meat loaves with fancy names, and from dishes disguised with French names that don't mean anything in a Midwest hotel." Although he enjoyed a tender, juicy steak as much as anyone else, nothing made less sense to him than America's love affair with beef.

"Why should I eat steak in Butler, Pennsylvania," he roared in print, "when I can go to the Nixon Hotel and have pure pork sausages, buckwheat cakes and piping coffee served on distinctive china with charming hospitality?" In Biloxi, Mississippi, he once scolded a restaurant owner whose menu offered only steak and chicken. "I've motored all the way down here for some pompano and Gulf shrimp," he grumbled (he got it). In his books, he urged his following to do the same, to insist upon fresh chowder in New England, freshwater fish in the Great Lakes region, soft-shelled crabs in Maryland, shrimp in the Southeast, Spanish dishes in the Southwest, and so on.

For all that Hines found to extoll in authentic American cooking, he wouldn't even let it near his taste buds if a restaurant didn't meet his standards of cleanliness. "More people will die this year from hit-or-miss eating than from hit-and-run driving," he said.

He had a technique for screening unsanitary restaurants at the outset. Parking his Cadillac coupe outside a potential dinner spot, he strode right past the restaurant's main entrance, setting his sights on the back door. If his nose could tell him what had been served two days ago, or if he ran into the family cat sleeping on the bread dough, he hopped right back into his car and searched for cleaner pastures. But if he found things reasonably presentable, he slipped into the dining room and asked to inspect the kitchen. An answer like "Against the rules" sent him hoofing, while "Certainly!" was taken as evidence that there was nothing to hide. Declining the invitation, he sat down and astonished the waitress by ordering five or six entrees.

High prices didn't impress him

Next to clean surroundings, what Duncan Hines wanted to find was simple food, well-prepared and attractively served. He had little truck with quaintness or atmosphere, nor was he impressed by high prices. "The finest lemon pie I ever had was in a town of 50 people. It cost 10 cents. One of the poorest was in a large New York hotel. That cost 40 cents."

Restaurants that pleased his sensibilities and his palate were added to the annual (eventually semi-annual) update of *Adventures in Good Eating*. With inclusion came the opportunity to lease a sign that crowed "Recommended by Duncan Hines" to passers-by. It was the seal of approval and though he might have sold the signs outright, Hines insisted on owning them so they could be retrieved when he felt a restau-

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"Restaurant owners dreaded the possibility of being dropped from the 'Duncan Hines Family.' "

rant had taken a tumble. (He once brought a racketeer to court for peddling counterfeit signs.)

Adventures in Good Eating was not the first restaurant guide intended for defenseless wayfarers. The *Guide Michelin* had already come to the rescue of discriminating French travelers, and in America directories of hostelries and eateries were available. But the American guides were mostly a sham, financed by the very establishments they purported to review. Hines, on the other hand, snubbed all offers of advertising. He fiercely guarded not only his independence but also his anonymity, making reservations under an assumed name and, in the early days, frontispiecing his books with a 20-year-old photograph of himself as a natty young blade.

But most important, *Adventures in Good Eating* oriented itself to the automobile at a time when owning one was coming to be regarded as an American birthright. Although Hines included big-city restaurants in the book, his was a trailblazer in featuring the small-town places, the uncelebrated inns and tearooms and taverns that his urban audience *needed* to know about in order to eat well between one city and another. And he told them about these places without the slightest trace of snobbery or literary affectation in a style that exuded humor and humility.

"You'll be ashamed of your heaped plate after you have rounded the buffet table," began one listing, "but you can't help it. Their smorgasbord is wonderful!" And what reader could help relating to the author of this down-home prose: "I ordered fried chicken and a filet mignon. You see, I was just sampling. I don't eat all the stuff, but honestly, this time I kinda stretched my belt because the stuff was mighty good."

Despite the seemingly inexhaustible demand among Chicago-based motorists for a cross-country dining guide in 1935, the first public edition of *Adventures in Good Eating* was not an overnight success. As author, editor, publisher and distributor, Hines sold 5,000 copies in 1936, netting a $1,500 loss. But the barrage of unwelcome telephone calls had been replaced by a sack of appreciative letters. In 1938, word-of-mouth advertising and an article in the *Saturday Evening Post* put him solidly in the black. The next year he quit his job and moved back to Bowling Green after publishing *Lodging for a Night*, a companion volume meant to help travelers find a bed.

From then on, his rise was meteoric. By the end of 1939, Hines' books were moving at a brisk 100,000 copies a year, a figure that could then be claimed by only 13 other best-selling authors. Eventually, with the addition of *Adventures in Good Cooking* and *The Duncan Hines Vacation Guide*, combined sales would rise to a half-million copies a year.

Hines was not the only one to profit from the success of his guides. Mere mention was enough to save many an innkeeper from a break-even existence or outright bankruptcy. With each revision, restaurant owners dreaded the possibility of being dropped from the "Duncan Hines Family" the way society women feared omission from the latest *Social Register*. The pressure to get in—and stay in—exerted an oft-mentioned influence on the quality of road food. Writing for *Scribner's Commentator* in 1941, Frank J. Taylor reported: "A famous chef told me that Duncan Hines has done more in four years to lift the standard of the American cuisine than all the cooks had done in the previous 40."

The appetites of legendary eaters have always made good copy, and countless reporters were fascinated by

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"Sales of the guides declined with the advent of the interstate that brought with it a 'get there' mentality."

how much food a full-timer like Hines could consume; few articles failed to delineate every dish placed before him at this dinner or that, usually implying that he plowed through six or seven meals a day (though he condemned overeating as an American vice and insisted that at sumptuous spreads he indulged only a professional taste of each dish). Even more enduring was the question of weight, and allusions to it changed over the years: "hardly a suspicion of cushioning at his waistline" (1938); "a trim and military figure" (1942); "inching towards corpulence" (1945); "a comfortable manifestation nudging the buttons of his double-breasted blue suit" (1948); "a not unexpected embonpoint" (1954). Of course, it's difficult to interpret these couched descriptions in pounds of paunch, but a 1947 photograph shows him positively portly.

As business grew and the mail poured in, Hines found it impossible to attend personally to every glowing recommendation or to check on places he'd heard were clinkers. Gradually, he assembled a volunteer corps of several hundred dinner detectives who pioneered new ground and surveyed the old. His army of culinary lieutenants included such well-known personalities as opera singer Lawrence Tibbett, cartoonist Gluyas Williams, radio commentator Mary Margaret McBride and travel-lecturer Burton Holmes, in addition to bank presidents, university professors and corporate chiefs—all of them proud to call *Adventures in Good Eating* "our book."

A far more lucrative offer

Most likely, Hines would have been happy to continue indefinitely at the helm of his little publishing empire had he not been sidetracked into a spinoff endeavor that proved far more lucrative than his guidebooks. In 1948, Roy Park, the advertising and public-relations director of the Cooperative Grange League Foundation, a farmers' cooperative now known as Agway, was casting about for a brand name for clients who wanted to enter the food-marketing business. Hundreds of possibilities came up but none fit the bill until Park thought of Duncan Hines. "That was a name that made me almost snap my fingers," he now recalls. "I just knew that was the one."

The two met at the Waldorf Towers in New York. "So, you're going to make me a millionaire," the author began. Park knew that Hines didn't aspire to great wealth. He had turned down umpteen get-rich schemes and had consistently refused to endorse anything. But Park took a different tack, telling his man that he wanted to *name* something in his honor. "By making your name more meaningful in the home, you can upgrade American eating habits," Park appealed.

A few weeks later, Roy Park was president of Hines-Park Foods, Inc., and 90-odd food manufacturers were gearing up to put the Duncan Hines label on their goods—not just cake mix, but 200 different items from bread and jam to fancy peaches and pears. But baking mixes were the superstars of the lineup. While other mixes had been marketed as "just add water or milk" convenience items, the new company altered the formula: they left in the milk (dried) and yanked the dehydrated eggs. Each package bore a fatherly picture of Duncan Hines and the quote: "I have found that strictly fresh eggs mean a bigger, better cake . . . in appearance, flavor and freshness."

After a vigorous promotional campaign consisting of television appearances and Duncan Hines Days in dozens of cities, the food champion slowed down and turned over much of his work to Park. When Procter & Gamble came knocking in 1956 with a remunerative offer to purchase all the Duncan Hines interests, the collaborators sold the name; Park joined the company and Hines, then 76, went into semiretirement in Bowling Green.

The Duncan Hines guides outlived their creator.

Procter & Gamble continued to publish them until 1962, three years after Hines died of lung cancer. But from the late '50s sales had been in decline. The advent of the Federal Interstate Highway System had brought with it a "get there" mentality. Many of the freeways were carved out of the countryside, passing miles from any of Hines' recommended restaurants. Earlier, the author had bragged that with the exception of a few "barren areas" such as the stretch between Chicago and Indianapolis, he had located outstanding places within an hour's drive of just about any spot on the map. *An hour!* In an hour, interstate sprinters could put 60 more miles on their odometers.

If things haven't got any worse since then, they've got harder. True, in my own gastronomic tours of the interstates I've found food that would have made Duncan Hines sit up straight and say, "It makes a fellow wish for hollow legs!" But the signal-to-noise ratio is poorer than ever. Freeways give us the impression that fast-food emporiums are the sole survivors of our culinary turf, and I can hear the voice of Duncan Hines even more emphatic now: "We Americans have got to get away from the 'bolt it and beat it' idea of eating." Spinach salad and fresh rhubarb pie have found their way onto some menus, but the parking lots of suburban steakhouses are the ones that fill by 5 P.M., heedless of the Kentuckian's exhortation, "If people would stop eating potatoes, meat and gravy, and nibbled more rabbit food, they'd be a lot better off." Whether in Massachusetts or Montana, run-of-the-road family restaurants seem to interpret American cuisine as breaded pork chops, Salisbury steak and fried fillet of (unnamed) fish accompanied by green beans out of a can. How often I have wished for Hines' nerve when he dressed down a New Englander with, "Why don't you people in Maine cook fiddlehead greens?" Bogus theme restaurants with their decor ordered from a design catalog may serve regional specialties, but all too often the meals come as prepackaged, portion-controlled servings that were cooked up in a factory kitchen, flash-frozen and shipped halfway across the state to be microwaved back to some semblance of life—not a state of affairs that would have cut much mustard with the man from Bowling Green.

It won't do any good to take his books along any more, but it wouldn't do any harm if we all took a little bit of Duncan Hines with us on the road—and I don't mean the cake mix.

"Signs crowing 'Recommended by Duncan Hines' were leased to restaurants that pleased his sensibilities. He insisted on owning them so they could be retrieved when Hines felt the restaurant had taken a tumble."

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Preserved intact, prehistoric flowers bloom once again

Photographed with the aid of a scanning electron microscope, fossilized flowers bear a striking resemblance to modern species

The Earth is host to several hundred thousand species of plants, and for more than a century now scientists have been trying to figure out how this astonishing botanical diversity came to be. Fossils, of course, are the best clues that we have to the evolution of plant life, but unfortunately the fossil record is far from complete. Some extinct plants disappeared without a trace; the remains of many other species have yet to be discovered. And because the conditions for plant fossilization are so exacting, much of the evidence that does exist is fragmentary at best. In the vicinity of Lake Ivö in southern Sweden, however, paleobotanists have found carbonized pieces of stems, leaves and even whole flowers buried in beds of clay that were formed millions of years ago. A number of these relatively intact fossils bear some remarkable similarities to plants that are still growing throughout the world today.

In a section of his new book *Close To Nature*, published this month by Pantheon Books, the pioneering Swedish photographer Lennart Nilsson very nearly succeeds in bringing Lake Ivö's fossils back to life. Using the sophisticated microscopic techniques that he has perfected over the past 20 years, Nilsson reproduces buds, blossoms and ferns in artificially colored images magnified many hundreds or even thousands of times their actual size. The result, as the pictures on these pages demonstrate, is an eerie and fascinating glimpse of life as it flourished eons before the emergence of Man.

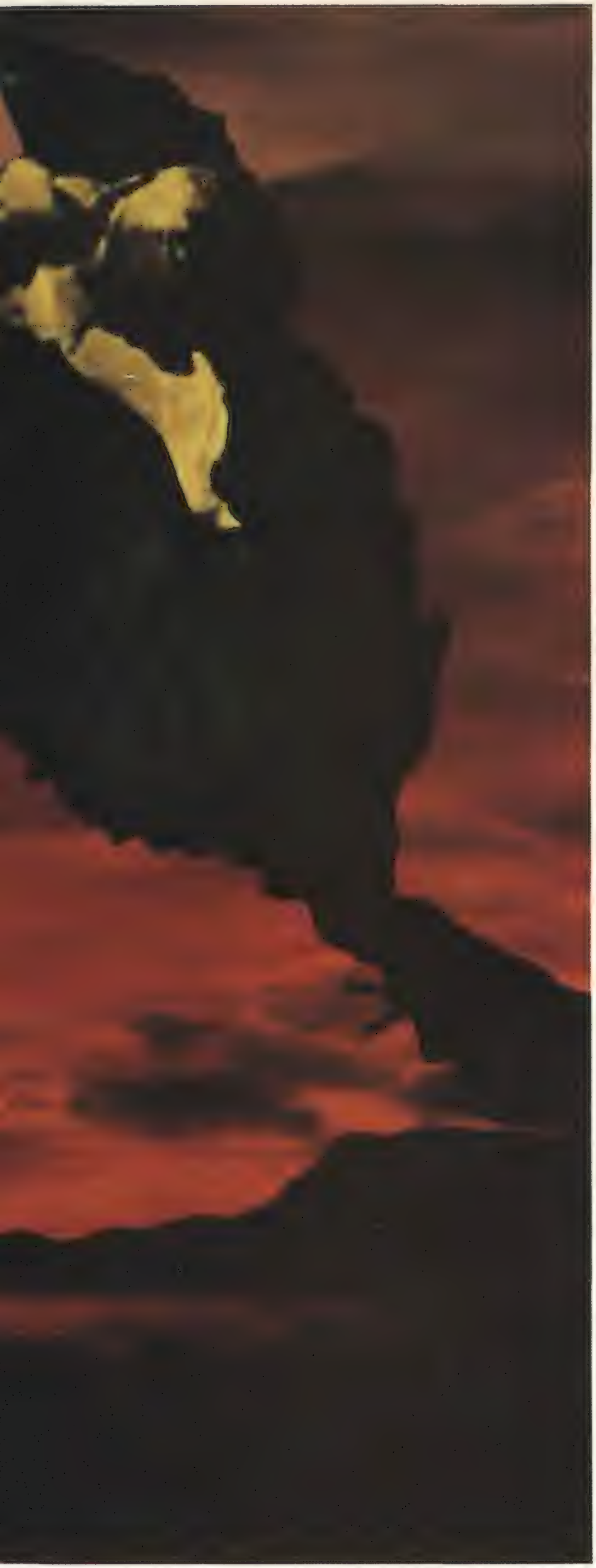
Most plant fossils are mere fragments, but whole buds and blossoms have turned up in this Swedish quarry.

Plants began growing on land about 400 million years ago when the wind, it is thought, spread the spores of coastal plants to the margins of freshwater lakes, ponds and streams, where they sprouted and grew. As those moisture-seeking pioneers colonized their new environment, they underwent certain adaptations. They evolved a skin or "cuticle" with pores, allowing them to regulate evaporation and absorption of carbon dioxide from the atmosphere. They evolved "plumbing"—the vascular systems that allow plants to transport water and nutrients from one part to another. Their reproductive systems were modified, too, ensuring the propagation of the species.

Some of the earliest plants to appear on dry land were precursors of the present-day ferns, which closely resemble certain Lake Ivö fossils (p.107). The flowering plant *Scandianthus costatus* (opposite) has been dated at 78 million years—much younger than the oldest ferns. Its striking resemblance to the modern South African *Vahlia* (p.103) could mean that the two species are related. Or it could mean that they are unrelated but developed in similar environments. That's the way it often is with fossils. Even the well-preserved treasures of Lake Ivö lead ultimately to more questions than answers about how it all began.—*Allan Chen*

Souvenir of a primeval spring, partly opened bud of *Scandianthus costatus* fossil is magnified 230 times.

Photographs by Lennart Nilsson



The extraordinary detail of the *Scandianthus* flower fossils uncovered near Lake Ivö in Sweden is rendered even more vivid in Nilsson's dramatic composition. The magnified blossoms are artificially colored to differentiate their various parts: sepals, petals, ovaries, styles and stamens with their filaments. In both *Scandianthus* and its modern look-alike, the *Vahlia* (above), a group of plants that grows in South Africa, Europe and Asia, the anthers are joined to their filaments at the back.

The *Scandianthus* is not the earliest flower to survive in fossil form, but it is perhaps the oldest of the best-preserved fossils that paleobotanists have discovered to date.

As aquatic plants began to colonize the land some 400 million years ago, they underwent a number of structural adaptations. They developed supportive tissue, vascular systems and modified reproductive systems, and a skin with pores to regulate evaporation and absorption. The *Scandianthus* fossils exhibit most of the standard flower features: sepals, petals, anthers, ovaries, pores, and so on. Since this plant dates back at least 78 million years, paleobotanists believe that all of the basic parts that characterize the modern flower had evolved by that time.

Lennart Nilsson's photographs underscore the remarkable similarity between the pores on a carbonized *Scandianthus* sepal (above, magnified 9,500 times) and a modern *Vahlia*. The structures are nearly identical. In both plants, the pores are sunk in hollows surrounded by a circular edge. Such extra protection is commonly found in evergreens or plants regularly exposed to drought, and also in marsh plants that are often immersed in water.

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During the enormous span of time that separates these two germinating ferns, the world and its organisms have been utterly transformed. Yet the fossilized Lake Ivö fern (right) is virtually identical to its present-day counterpart (below). The spiral configuration of both young plants shows that the growth pattern of the fern has remained constant for at least 80 million years of its existence. One of the earliest plants to appear on land, the fern has been able to adapt to changing conditions without drastically altering its primitive form.

Perhaps, since they are now extinct, the *Scandianthus* and a number of other plants discovered at Lake Ivö were not able to adapt as successfully as the fern. They did, nevertheless, evolve to a relatively advanced state in the development of flowering plants. For example, the fossilized upper part of one unidentified flower (opposite), with honey glands positioned in a circle around the style, which runs down to the ovary, closely resembles the arrangement found in many flowers today.

NASA/ARMY
703

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Everyone gets into the act for "The Big Tossup" at an International Jugglers Association convention.

By John Grossmann

When everything is whirling around, it must be juggling

Once the province of circus and vaudeville, this ancient skill is erupting on streets, campuses, in laboratories and doctors' offices

On cue, pins, scarves, rings, balls, beanbags and even chairs fly through the air with the greatest of ease.

Learning to juggle is a lot like one's first kiss. Suddenly, inexplicably, awkwardness vanishes (if only for a moment) and something wonderful happens. There comes a giddy, intoxicating, childlike joy.

John Cassidy learned at a highway rest area, a stop or two after picking up a hitchhiker who was juggling three rocks instead of sticking out a thumb.

Dave Finnigan concentrated on becoming a juggler in the solitude of the Cascade Mountains when his son Davy, slowed by cerebral palsy, was enthralled by a houseguest's impromptu juggling.

On Sunday afternoon, jugglers gather in San Francisco's Golden Gate Park to polish their skills and swap tricks. Here and there, juggling breaks are replacing coffee breaks: Seattle Mayor Charles Royer sometimes tosses the set of beanbags he has squirreled away in a desk drawer. The sport has even invaded universities. At MIT, clubs are passed among jugglers in complicated patterns; when participants form the outline of a five-pointed star, timing is crucial, and across a square the spin as well as the timing must be precise to avoid a club collision. Last June, at the Williams College commencement, Tim Sedlock gravely accepted his diploma, then whipped out three fire torches, lit them and proceeded to treat onlookers to a spectacular juggling display. One million is probably a conservative estimate of juggling Americans.

Can you scramble an egg? You can juggle

A breezy 1977 paperback, *Juggling for the Complete Klutz,* is now in its 22nd printing and has sold nearly 700,000 copies. The book carries this bit of back-cover advice: "If you can scramble an egg, find reverse in a Volkswagen, or stumble onto the light switch in the bathroom at night . . . you can learn how to juggle."

As recently as 1976 the New York-based International Jugglers Association had 500 members. Today the ranks approach 3,000. There are big-name professional jugglers, flashy, hat-passing street performers and nimble-fingered birthday party rent-a-clowns. But upwards of 80 percent are amateurs, spreading the gospel as they toss clubs or rings on a crowded beach or street corner, or unzip a flight bag and juggle three, four, maybe five beanbags in an airport waiting lounge.

Man and juggling have gone hand-in-hand for thousands of years, as we know from the walls of tombs, historical writings and the travels of explorers. The earliest jugglers appear to have been Egyptian: four women in a tomb wall painting from the second millennium B.C. at Beni Hasan on the Nile. Xenophon describes a banquet in the home of a wealthy Athenian at which he said a girl juggled 12 rings while dancing. Our word for this ancient skill is derived from the Latin *joculari*—to joke—and in the Middle Ages juggling was the province of countless court jesters and minstrels. Even Norway's King Olaf Tryggvason was known to deftly toss three small swords.

Marco Polo encountered Asian jugglers in the 13th century. Five hundred years later, a scientist sailing with Captain James Cook wrote in his diary that women on the South Pacific island of Tonga could toss five gourds for a quarter of an hour. Not long ago

Photographs by Liane Enkelis

Anthony Gatto, 11, invariably opens his nightclub routine with this simple—for him—five-ball toss.

a film crew from California found Tongan women still at it, keeping seven limes or green tui tui nuts airborne. And Eskimo women have passed the time juggling stones while awaiting the return of their men from hunting trips.

A story is told of newsman H. V. Kaltenborn's capture for ransom by Chinese bandits while reporting the Chinese Revolution in 1927. One account has Kaltenborn, guns trained on him, reaching into his pocket for three orange balls. In another version he grabbed three stones from the roadside. No matter. Tapping a schoolboy hobby, he captivated his captors into releasing him.

Back in the States at about this time, competing vaudevillians and circus performers split the art of juggling into specialties. Some worked with incredibly heavy objects such as cannonballs, while others took juggling onto horseback. So-called antipodists juggled with their feet, and tuxedo-clad "salon jugglers" manipulated top hats and canes. Comedian W. C. Fields became an expert, especially proficient with cigar boxes. But the passing of vaudeville and the death of circus after circus cast juggling into the shadows. Now it is re-emerging.

John Cassidy picked up that hitchhiker while driving to his sophomore year at Stanford. Heading for a job with CARE in Bangladesh after graduation, he got a batch of rubber balls as a going-away present. Overseas, Cassidy filled his empty social life by filling the air with those balls. In time, he could keep as many as five going. Soon, all 11 students in his mechanics' workshop were juggling spark plugs.

A most unusual carrot for truants

Later, he used juggling as a carrot in his remedial-reading classes in the California town of Mountain View. On Fridays, when truancy cut attendance from 25 down to ten, he began to demonstrate and give lessons. He also handed out a five-page reading lesson on juggling. Friday attendance climbed to 20. Most students learned to juggle, but more important, many became better readers.

Then Cassidy became an entrepreneur. Teaming with college friend B. C. Rimbeaux and illustrator Diane Waller, he expanded his five-page lesson into a 70-page paperback, the popular *Klutz.*

Dave Finnigan speaks of his joy in learning to juggle. "It's so good for hand-eye coordination, timing, balance, concentration." He recalls his resentment at school physical education teachers who simply handed out basketballs or softballs and bats and had two captains choose up teams. "I believe that by junior high school, kids have divided themselves into spectators and participants," Finnigan says. "I was a spectator.

Professor Confidence beams amidst a swirl of scarves, teaching children to juggle at Camp Shalom, Las Vegas.

Now my objective is to get more kids off the sidelines."

A family-planning and population-control expert here and abroad, Finnigan jettisoned his promising career and a nearly completed doctorate for a "crusade to convince gym teachers there's more to P. E. than sweating." With his five-foot seven-inch frame togged out in a black bowler, tails, ruffled shirt and bow tie, Finnigan bills himself as Professor Confidence. From his home in Edmonds, Washington, he runs the Juggling Institute, and Juggle Bug Inc., a distributor of juggling props. Addressing physical education conferences, he emphasizes that juggling is a valuable lifelong skill. As Professor Confidence, he has taken his message into more than 300 Seattle-area schools. Finnigan figures he has taught more than a quarter of a million kids to juggle.

One day last winter at Eisenhower Middle School in Everett, Washington, Finnigan captured students' interest with a fast-paced juggling show. Then, in first-period gym classes, he asked 100 eighth-grade boys and girls "How many of you have ever tried to juggle?" Nearly every hand went up. "How many of you were successful?" Two hands.

Most attempts stop short of success because nearly everyone assumes that to juggle three objects one tosses them in a circle. That is, indeed, one way, which jugglers call a "shower." But it's the hard way. A much easier method of keeping three objects aloft is to throw them in a "cascade pattern," which resembles a figure eight turned on its side. Finnigan has found that even third-graders can learn this in half an hour.

He begins his lessons with nylon scarves—perfect for beginners because they fall so slowly—starting with one. Then two. "Throw the first one in an upward motion across your body," he says. "When it gets to the top of its arc, throw the second one. Make a big letter X with your arms. Then catch down. Catch down. Practice, practice." Then on to three. "Always start with the hand that has two. When the first one gets to the top, throw the second from your other hand. It looks like this. One, two. Catch, catch. Don't

Free-lancer John Grossmann lives in Pennsylvania and admits to being something of a closet juggler.

"I want them to sense the special magic of juggling," he says. "I would like to have them continue."

Neophyte juggler Dan Ellwanger practices as brother John, handcuffed, struts his stuff with stage balls.

Flying toothbrushes help Dr. McMahon get acquainted with patients and distract them from what's to come.

stop. When number two is thrown, toss up number three. Every time one gets to the top, throw another. It's just like walking. Right, left. Right, left. . . ."

Soon the gymnasium was ablur with pink, yellow and orange scarves drifting floorward like miniature parachutes. Here and there they began to remain under control, and where they did, cries arose: "I did it, I did it!" "Watch me!" "I think I got it!"

"I'm now working on seven objects," Finnigan said. "I was amazed when I got to four. Thrilled when I got to five. Completely floored when I could do six. Now I'm actually working on seven and I'm 42 years old. I'll tell you what it's better than. Better than a PhD."

Juggling is inexpensive, easy to learn and portable. But to dedicated jugglers there is one more asset—the most important. Says Finnigan: "It's totally open-ended. You can't top out. There's no way you can say, 'Now I know it all.' " There's always one more club, one more ball to add to a pattern. A tricky exchange to try with a partner. An under-the-leg or behind-the-back flourish to master.

All sorts of ancillary physical and mental benefits are being attributed to juggling, although it remains for physiologists and psychologists to initiate controlled studies. Many notice a sudden swing toward ambidexterity. Edward Smith, a Seattle crane operator, believes juggling has improved his peripheral vision. As a juggler learns not to focus on his hands, so too must a crane operator. Then, accomplished jugglers rack up aerobic benefits. Listen to somebody keeping five clubs going: in addition to the rhythmic, freight-train clacking of clubs slapping palms, you'll hear a back beat—deep inhalation and exhalation.

Kids in the emergency room of Brookside Hospital in San Pablo, California, forget their fears when Dr. Barry Berkowitz tosses beanbags. San Francisco dentist Mark McMahon juggles to distract the children in his chair; his props are custom-made two-foot-long red, blue and yellow toothbrushes (above).

On the other side of the country, in Horseheads, New York, family practitioner Steve Allen jr. occasionally juggles for his young patients. The eldest son of entertainer Steve Allen took up juggling a couple of winters ago with the help of a copy of *Klutz,* and soon found himself taking juggling breaks between patient visits. "Suddenly, I realized that I was using

it as a way to reduce stress." Allen has taught juggling in stress-management seminars as a tension-reducing technique.

In the theater program of Tisch School of the Arts at New York University, when master teacher Hovey Burgess introduced juggling in his stage-movement course, many students quickly learned to toss six balls with a partner. Interestingly, says Burgess, this teamwork carries over into acting: after trading balls and covering for each other's slightly errant tosses, many juggling duos exchange their lines more smoothly.

With a grant from the New York City Board of Education and the Exxon Education Foundation, special-education teacher Bill Stone added juggling to his curriculum, giving his fourth, fifth and sixth graders reading and writing assignments pegged to their juggling instruction. Not only did he turn out some pretty fair jugglers—his students all improved their reading scores by at least three and a half years.

Eloise Ristad is a 59-year-old piano teacher and coach of performing artists from Boulder, Colorado. One day her daughter Rhonda went to the piano after practicing juggling. "Funny thing, Mother," she mused. "I swear my sight reading was twice as good as usual." Mrs. Ristad started incorporating juggling into her workshops for musicians, actors and dancers. She tells of a concert pianist struggling with a three-voice Bach fugue. "It's hard perceptually for most people," she says, "because the three voices, each similar, weave in and out." Perhaps a little like cascading balls; after a brief juggling session the pianist returned to the fugue with noticeable improvement.

A few mathematicians and physicists have trained a professional eye on this ancient pastime. Ron Graham, for one. Graham, blond and soft-spoken, has been a juggler for better than two-thirds of his 49 years. He casually tosses three balls one-handed while on the telephone, right in his office, door open. Hardly what one expects in the math-sciences research center of Bell Labs—of which Graham is the director.

A gymnast while at the University of Chicago, Graham can toss and catch a ball while executing backflips on the trampoline, and delights in coming up with new juggling patterns, such as a reverse, cross-hand cascade. He stressed the importance of "seeing the pattern." "In mathematics, there's something called analytic continuation, which means, if you have a curve that's described by an equation and you know what a portion of it does, then you know how the rest of it is going to behave. Eventually, like a baseball player chasing a fly ball, a juggler can see just a little piece of the pattern at the top of the arc and have a pretty good idea where the object will come down.

"Juggling is a much broader activity than many people think," Graham continued, taking an 8½-by-11

Four "jogglers" work out. Racing, they must use special balls and keep three or more objects airborne.

In his office, John Cassidy throws copies of his book. "As a juggler," he says, "*Klutz* describes me to a T."

Skating backward in Las Vegas club, Albert Lucas closes act by executing "The Chop" with fire torches.

pad of paper from his desk and spinning it on an index finger. "This is quite easy to do. It probably took me ten hours to learn." Up again, and into a drawer stocked with clubs and beanbags, Graham pulled out two balls. The first, painted to look like a soccer ball, he spun on his finger. The second one, yellow, about as big as a tennis ball, he balanced atop the first. "It turns out the second ball doesn't spin on the top. It rolls around. No one has mathematically analyzed a ball on a ball." He confessed to 50 hours for this trick.

Jugglers, in time, learn that trying to throw ever more objects by tossing them higher increases errant throws but does not buy a proportional amount of time. Toss an object twice as high, Graham explained, and it stays aloft about 40 percent longer. To get twice as much time for catching you need to throw a ball four times as high. In order to get 11 rings in motion, a Guinness record for number of objects juggled, the famed Russian circus star Sergei Ignatov tossed them four times his height.

This year's convention of the International Jugglers Association, held in July in Las Vegas, drew more than 500 enthusiasts. There were workshops for beginners, so-called "joggling races," stage competitions for the most skilled, and plenty of time for side-by-side trick swapping in a hall kept open round the clock. From hands belonging to teenagers, grandfathers, schoolteachers and computer programmers flashed scores of objects: brightly colored balls; silver-banded clubs, rings, cigar boxes, bowler hats. One, two, three, then four Ping-Pong balls were juggled from the mouth of one strong-winded artist. In a timed event, Las Vegas performer Albert Lucas juggled five clubs for 21 minutes, five seconds, annihilating the previous IJA record of six minutes, 10.64 seconds.

Many feel that a professional performer named Anthony Gatto is destined to become the best juggler who ever lived. In stage attire—white Izod sweater over white cotton jersey, white shorts, white sneakers and white knee socks—Gatto looks as though he belongs at center court at Wimbledon—as a ball boy. Anthony, all 62 pounds of him, has yet to celebrate his 12th birthday.

Fingertips taped for protection, he began a recent afternoon rehearsal by tossing three rings one-handed. Soon both hands were at work. Four rings, then five filled the air. Without stopping, he spun halfway around and didn't miss a beat. The rings kept popping out of his hands like a batch of blown soap bubbles. His father and trainer, Nick, tosses Anthony another ring. Then another. Then, with seven rings overhead, Anthony repeated the half-turn. "OK," Nick called out. "Give me a nice ten with the seven." Anthony obliged with ten well-controlled tosses.

A blur of balls above display cases

The first to see Anthony perform in public were patrons of Nick's tobacco store in a shopping mall near the family home in Ellicott City, Maryland. True, some didn't see Anthony, but just a blur of balls popping up from behind the glass-topped display cases for pipes and cigars. The counters were taller than the five-year-old. Nick, a former acrobat and juggler himself, started Anthony balancing paper cones on his nose, his forehead, his arms. The move to objects with a bit more substance was not without incident. More than one errant toss shattered a display case.

"Anthony," according to Nick, "has never stopped improving." Even before his hands were big enough to hold five clubs at once (two in one, three in the other), Anthony began his mastery of them "the very first night he tried," says Nick. Anthony was eight. His method of starting, still maintained in his stage act, was a trick in itself. Head tilted back, Anthony balanced one club upright in the center of his fore-

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head. Then, with four clubs moving hand-to-hand in front of him, he waited for the proper instant—a hole left open in his juggling pattern—and nodded his head. The club tottered from his forehead, flipped over and fell right in sync.

According to astute juggling observer Karl-Heinz Ziethen, "Anthony has that certain ability that cannot be learned. He needs only to think through a trick, practice it a few times and then he can do it. Others need weeks or months to learn the same skill."

Juggling's wunderkind calls a favorite trick the Anthony Puzzle. He made it up. Breaking into a speedy half-shower, he whipped into a new form by going behind-the-back with a right-handed toss, into a left-handed, under-the-leg maneuver, then another behind-the-back, right-handed toss.

"There's other things I like to do," Anthony said after rehearsal, finishing a box of raisins. "Swim, play the violin, ski, ice skate. But juggling's the most fun."

The Flying Karamazov Brothers are five of juggling's most recognizable faces. Neither Russian, nor brothers nor aerial artists, when this quintet is on stage almost anything is likely to fly. In a segment of their act known as The Challenge, the Karamazovs dare the audience to stump the champ. Bare-chested, dressed in red satin boxer's shorts, Howard Patterson emerges to juggle successfully any three objects the audience tosses up onto the stage—even dead fish, telephone books, cacti, a plate of Jell-O.

Patterson and fellow members Randy Nelson, Paul Magid, Sam Williams and Tim Furst hail from an assortment of disciplines—art and drama, English history, mathematics, philosophy. Their show, which enjoyed a successful Broadway run in New York's Ritz Theater, is long on patter, treats juggling as theater.

The Karamazovs also present an arresting demonstration of juggling as music. Clubs are bounced onto xylophone keys, off drums and spun with sleigh bells attached. In their dressing room Patterson calls juggling "music for the eyes, visual rhythm."

Sometimes the Karamazovs try to teach interested spectators to juggle. "Imagine," said Nelson, "watching a string quartet and having the first violin come out and hand you his fiddle and say, 'Well, here's the basic scale.' When I teach juggling, I first ask 'Can you juggle?' and they say 'No.' But once they have learned the basics—and it doesn't take very long—they are simply jugglers who haven't practiced enough."

Maniacal Karamazovs toss props used in performance. "Objects of Terror" involve cleavers, torches, a ukelele, champagne. In 50-odd acts are Sickle and Apple Tricks and Percussion Quintet for Juggling Ensemble.

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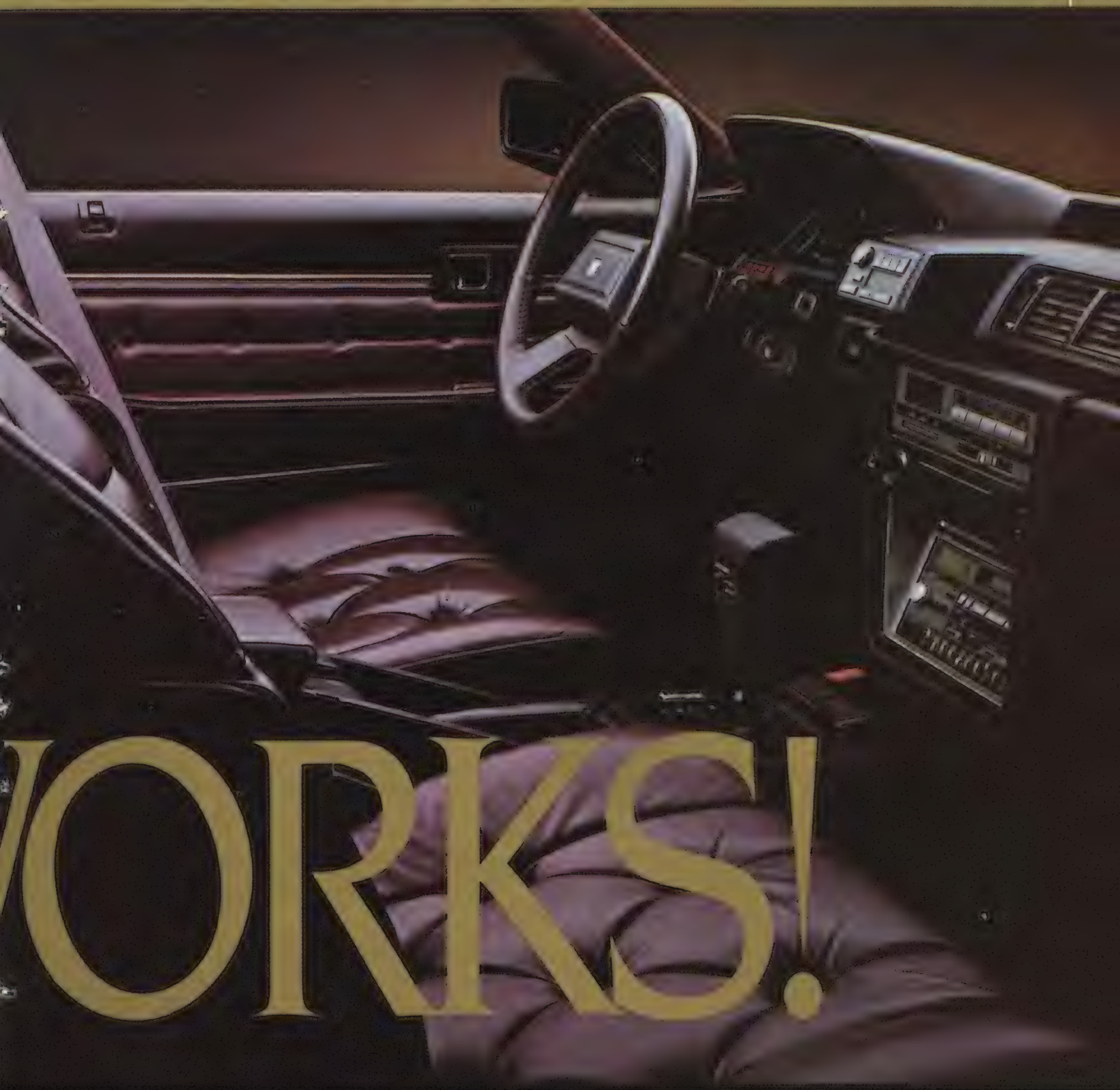


ORKS!

Having descended into troubled waters, Bath visitors variously gossip, scrub themselves or ogle one another.

By Meryle Secrest

Bumptious Bath, the town that Beau Nash built

As social director of Britain's famed spa he was all for gambling, but dead set against duels, or wearing spurs on the dance floor

As caricatured in 1800 by the satirist John Nixon, they wear caps and loose gowns, which were de rigueur.

The Beau himself, shown in later life, reveals the watchful eye he kept on doings in his private kingdom.

In a sense cynical novelist Tobias Smollett understood the place all too well. "Every upstart of fortune . . . presents himself at Bath," one of his characters sourly observed in 1771. "Clerks and factors from the East Indies . . . planters, negro-drivers, and hucksters, from our American plantations . . . usurers, brokers, and jobbers of every kind; men of low birth, and no breeding . . . without taste or conduct . . . all of them hurry to Bath, because here, without any further qualification, they can mingle with the princes and nobles."

If, for Smollett, the helter-skelter mingling of classes was a cause for dismay, to others it heralded a new egalitarianism. And Bath was growing, mingling grand houses with more modest ones. Almost all the new houses were built in classical styles of the same beautiful pale limestone. The city was being embellished with paved walks, gardens and a riverside promenade that residents and visitors alike might democratically enjoy—to their edification, since, as it is optimistically observed, taste has a civilizing effect.

In short, the West Country town was becoming an elegant, harmonious place that some people could hardly praise enough. Passing through in the 1770s, American medical student George Logan wrote rapturously home. Bath, he reported, was "one of the most superb and magnificent Cities in the World. It is situated in a Valley surrounded [by the] most delightful amphitheatrical circle of Hills." As a mineral-water spa, he further noted, it was attracting numbers of fashionable visitors who came "to alleviate an insurmountable itch for pleasure . . . there are public Balls twice, private ones called Cotillion Balls twice a week. Playing Cards at the public Rooms every night in the week except Sunday."

There was something distinctly English about it, too. Local designers, respecting the natural contours of the landscape, shaped their hillside terraces into

Bath today is still a joy to the eye. Cosy, yet full of history, it draws nearly a million visitors a year.

elegant, sinuous curves that, like pieces of a jigsaw puzzle, fitted with satisfying appropriateness into the whole. Few 18th-century towns were more adroit at stepping roofs up a terrace or exploiting meandering perspectives, or presented more regal Palladian-style facades. Even today Bath, a city built for pleasure, is handsome and graciously proportioned, a place of historic memories and ancient, honey-colored building stones. Some say it is the prettiest town in all England. The gambling is gone, of course, but close to a million visitors a year show up to parade through the Pump Room and the Assembly Rooms, admire the Circus and the stately Royal Crescent, and study the Roman baths which, ironically, were not excavated until the late 19th century.

Bath's original search for health and pleasure transformed a squalid wool town with some hot-spring baths into a fashionably sophisticated resort. And squalid it certainly once was. It is said that, upon approaching Bath, Queen Elizabeth I was so appalled by the smell that she turned around and left. Even a half-century later, in the reign of Charles I, Bathonians flung their slops into the streets with abandon, and pigs browsed in the mess. Bath's modest reputation for its mineral waters—the town has the hottest springs in Britain—dates from well before the Roman conquest. But early on, the reputation of the baths was somewhat marred by the fact that those visitors brave enough to bathe seem to have mingled pell-mell in the waters. There they sloshed, the leprous, scrofulous and pock-marked, among hapless dogs and cats flung in for good fun—as well as an occasional fully clothed inhabitant.

Trying the waters to enhance fertility

Then royalty began to come and at once Bath's fortunes took a turn for the better. In the case of James II's second wife, Mary of Modena, sheer desperation drove her to it. It was 1687. The somewhat shaky monarch must have an heir and she had not been able to produce one. It was a common belief that bathing in a hot spring enhanced fertility. No doubt after attempting less drastic remedies, Queen Mary journeyed there. About nine months later, she gave birth to a son. It was the patronage of Queen Anne, however, that gave the city the kind of free publicity Madison Avenue dreams of. In 1702 the poor lady had to be carried to her coronation, so disabled was she. She naturally took the waters with poignant persistence.

Other royal visitors were frequenting Bath, and not only for medical reasons. Frederick Louis, Prince of Wales, the oldest of George II's eight children, was especially free with his patronage, which made it easy for Bathonians to overlook his shortcomings, for he was, his father declared, the greatest villain ever born.

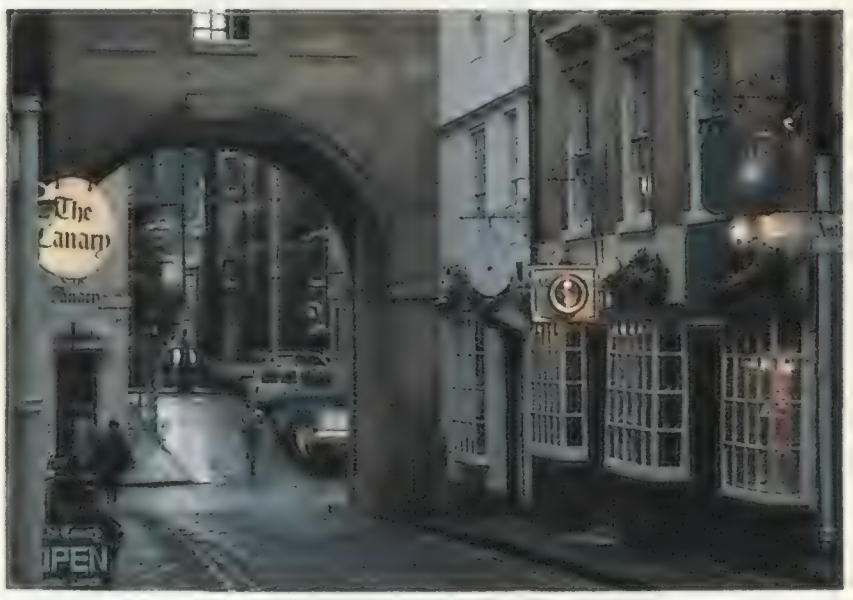
Post-Nash attraction, Pulteney Bridge over the Avon, was designed by Robert Adam, completed in 1774.

To Frederick Louis, as to his sister Princess Amelia, the west of England provided a distinct relief from court life. The Princess, who had acquired a reputation in London for the free and easy manner of her gambling, the savagery of her gossip and the fluency of her lying, could be even freer and looser and wilder in Bath. No matter. The main thing was that she kept coming. Hard on the heels (and purses) of all the visitors were tailors, milliners, peruke makers, purveyors of snuffboxes and pheasants, portrait painters, quack doctors and last but by no means least, the professional gamblers.

Historians of the city like to point out how much it meant to Bath to be patronized by high rollers with limitless funds of hope or credulity. It was a time in England when gambling was as common as snuff sniffing or the wearing of wigs. In 1770, Horace Walpole noted, "The gaming . . . is worthy the decline of our empire. . . . The young men of the age lose five, ten, fifteen thousand pounds in [a London] evening. . . . Lord Stavordale, not one and twenty, lost eleven thousand there last Tuesday, but recovered it by one great hand at hazard." Aristocratic gamblers were expected to be not only reckless but stoic. A young man losing at cards was supposed to show his indifference. One way might be to fall asleep at the table or, like the British statesman Charles James Fox, according to one writer, find a cozy corner and ostentatiously take out a volume of Herodotus. Betting was so prevalent that when a man collapsed outside a London club one day, members began to lay bets on whether he would recover. They violently objected to all attempts to bring the victim round, saying that it marred their sport.

The first visitor who fully appreciated Bath's potential was Richard (Beau) Nash, the son of a middle-class industrialist. Having been dismissed from Oxford over an affair involving a girl, Nash had tried his luck at the military and law, but was evidently good for neither. What he was good for, he discovered, was putting on a show. In 1695, as a law student at the Inns of Court in London, he had arranged a spectacular celebration in honor of William of Orange, the Protestant monarch recently imported from the Netherlands. The king offered him a knighthood on the spot. Although Nash declined it, the probability is that his nickname descended on him at that moment. He was a genuine Beau, a spark, a dandy, perhaps a fop, not quite a rake, as well as a professional gambler. He had to follow the game which, at the moment, meant going to Bath. Yet the need for this source of income was not his greatest goal. Beau Nash knew that fashionable gaming could be a short route to social acceptance, provided that a young man dressed effectively, spoke like a gentleman and had polished manners.

In shape, Nash was ungainly and tending to bulge. He had rough-hewn features, a conspicuous nose and a face that grew ever redder as he aged. The Beau's great gift was for being ingratiating. He conversed amusingly and danced divinely. His knowledge of protocol and precedence was refined. In addition, he was endearingly generous, supporting one good cause after another, and eminently fair-minded. To all of these fairly remarkable attributes was added a natural air of authority that made him, even when he



An 18th-century-style perspective leads visitors through an archway locally known as Trim Bridge.

Meryle Secrest grew up in Bath. She wrote about d'Annunzio for SMITHSONIAN, *July 1983, and is author of a soon-to-appear biography of Kenneth Clark.*

A visit to Beau Nash's Bath

was a law student, the recognized *arbiter elegantiarum*.

Sometime after Beau became the city's Master of Ceremonies, a feat he accomplished with ease shortly upon his arrival in 1705, his livelihood was partly secured (and this was not generally known) because as Master of Ceremonies he received a retainer from the city's gambling rooms. More to the point, his social aspirations were as good as met. He would soon be known as the Uncrowned King of Bath, the Arbiter of Elegance and the Dictator of Manners of Polite Society. Few monarchs have had as long and glorious a reign—in Beau's case, 55 years. No wonder that in *The New Bath Guide*, poet Christopher Anstey declared: "For this, in compassion to mortals below,/The gods, their peculiar favour to shew,/Sent Hermes to Bath in the shape of a Beau."

The Great Bath was built by the Romans in the first century A.D., but not found or excavated until 1878.

A lesser man would have been content to rake in the profits, deck himself out with furniture and gold lace and further improve his connections. But Beau had, or at least developed, higher aspirations and a very real sense that where decorum in Bath was concerned, *noblesse oblige*! He realized that the social scene was too full of rough diamonds. Men appeared at the balls clanging with swords and clomping around in riding boots; women wore their aprons. The dancing was loud and boisterous. The band was usually terrible and an evening's entertainment wore on raggedly until the participants dropped from exhaustion. Games of cards were full of cheaters and the duels that resulted untidily frequent. Bath's ill-lit streets would have made it a happy hunting ground for pickpockets.

Visitors had a problem traveling within the city, at least if they did not walk. The sedan-chair carriers—two men, one on each end, known as chairmen—were famous for refusing to let passengers disembark unless they paid an outrageous fee. Most elegant frequenters of Bath (the sort of people Beau was determined to cultivate) would never countenance such treatment. So, energetic and far-seeing at age 31, he set out to help tackle these problems.

An early reform was to enforce a regular tariff on lodgings since, from his first arrival in Bath, he had first-hand experience of the awful quarters for which local landlords might extort a guinea a night. Another was to bring in professional musicians from London. The City Corporation petitioned Parliament for the necessary authority to clean and pave the streets, and require that citizens hang lanterns outside their houses at night. Finally, those unruly rapscallions, the chairmen, were required to have licenses and could lose them if they shook down their clients too much.

He was a snob, but fair-minded

In 18th-century Bath, as we have noted, people of quality, who in other circumstances would not have deigned to sniff at country bumpkins or people in trade, so far forgot themselves as to nod to and even dance with such humble folk.

This odd democratic aberration should not be laid entirely to goodness of heart. Beau Nash might be a snob, but he was fair-minded. If rustic local gentry could afford to attend a ball, then they must not be snubbed. Genteel ladies who would not let their daughters dance with social inferiors were sternly dealt with by Beau.

He even tackled the matter of dress. He took the

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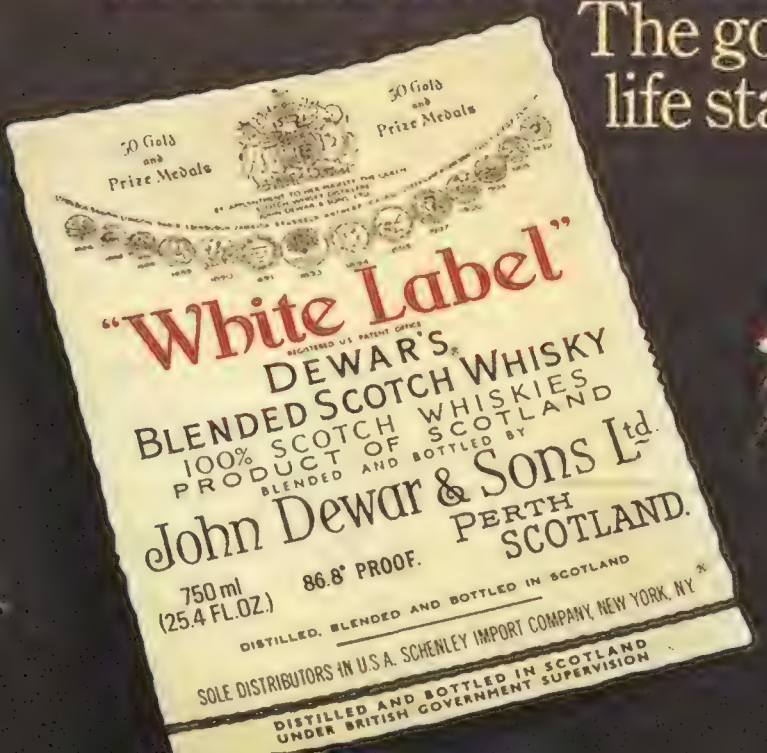
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Scene in a fancy gaming room, from Rowlandson's 1798 series *Comforts of Bath*, shows the elegant dress and manners dear to Beau Nash's heart, but includes cardsharps and grotesques with large "corporations."

strongest possible exception to the wearing of white aprons at balls—an innocent custom, one would have thought—and once tore such a garment off the Duchess of Queensberry, who had dared to appear so attired. The sight of men in riding boots similarly outraged him, and he would pointedly ask if the gentleman had forgotten his horse. He was also determined to have such social functions end at the civilized hour of 11 P.M. One night, when the Princess Amelia commanded an encore, he ruled against her. "One more dance, Mr. Nash," she insisted. "Remember, I am a princess!" Nash responded, "But I reign here and my laws must be kept." Oh, he was a marvel!

Nash's most remarkable feat required a display of personal courage. It was the fashion for young men to wear swords in London and whatever they did there was imitated everywhere else. Dueling, however, was the bane of Nash's existence and after one particularly notorious fight between two gamblers he determined to put a stop to it. To show his mettle he once picked a quarrel—typically, over a question of good manners—and fought a duel in which he was honorably wounded. That seemed to settle something in everyone's eyes, as a subsequent comment by Captain Absolute, one of the characters in Sheridan's *The Rivals*, makes clear. "A sword seen in the streets of Bath," the Captain said, "would raise as great an alarm as a mad dog."

Like any sovereign, Nash also saw the benefits to be had from harmonious surroundings; in this, Bath had the great good fortune of having John Wood the elder and younger, architects who soon transformed the city. Wood the elder wanted to fill Bath with classical glory. His aim was to sweep away some architectural relics of the past, replacing them with spacious proportions, grandeur and light. He longed for squares and crescents—his son's Royal Crescent (pp. 134-35) would eventually be judged the most beautiful in England. He began leasing land and imposing an architectural unity upon Bath.

When Bath was coming into vogue, visitors who came there to drink the waters were occasionally deluged with them. The public baths had been built mainly with bathers in mind, and they were roofless. Some kind of room was obviously required in which visitors could linger, perhaps listening to music while

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Nothing else feels like real gold.

A classical town-house complex, the Circus, was designed by John Wood and lived in by the likes of Thomas Gainsborough. It is still used as, among other things, offices for dentists and Bath's City Council.

they dutifully sipped, or downed heroic drafts. Most of these problems were solved by the first Pump Room, which was completed a year after the Beau came to town. Soon the town also acquired a set of rooms that included a handsome 90-by-36-foot ballroom, a card-room and tearooms, all built close to the River Avon. Later, most glorious of all, came the Assembly Rooms designed by Wood the younger.

Beau controlled all public amusements in the Assembly Rooms and wisely discouraged private gatherings. Anyone coming to Bath had to pay him court if they wished to see and be seen. The place might not be Versailles, but Louis XIV could hardly have arranged matters more sagely.

Nash did not think entirely of pleasure. He helped raise money for charitable causes, notably a city hospital so that the poor and infirm could benefit from spa treatment. On a more personal scale, he was known as an easy mark for any poor clergyman with, for instance, an ailing wife, or for young gamblers whom he often attempted to keep from wagering their all on one last desperate hand. While he never had children of his own, he used his influence as willingly to advance the cause of young love as to chastise insolence.

Even terrible-tempered Alexander Pope had a few good words to say about Bath. He had, he noted in 1714, "Slid, I cant tell how, into all the Amusements of this Place: My whole Day is shar'd by the Pump-Assemblies, the Walkes, the Chocolate houses, Raffling Shops, Plays, Medleys, &c." Nothing was easier than sliding into such charming indolence. The arrival of an important visitor, for instance, was announced far and wide by ringing the bells of the Abbey. Naturally, at certain seasons they rang incessantly and that meant a constant to-ing and fro-ing by servants to see who it was. The compact layout of the town ensured that everything was within easy walking distance. Upon arrival, visitors bumped into friends and newcomers immediately. The streets were crowded with celebrities, the wealthy, the titled or the famous: poets, princes, aristocrats and great soldiers. The place was a snob's, and a fortune hunter's, dream.

Those who made the journey up to Bath from London—in Nash's time it took two to three days by stagecoach—came prepared to stay for several weeks. The fashionable lady visitor, having taken the precaution

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TWO THOUSAND

In Pump Room, under a lumpy statue of Nash, the ill, gouty and hung over wait to try the waters.

The Comforts of Bath included brisk morning rides outside the town on small, West Country horses.

Rowlandson's most ironic "comfort" shows sprawled cripples and sedan chair before Royal Crescent.

of ordering chairmen the day before, was met at her lodgings with plenty of blankets and conveyed to the baths by hand, as it were, in an enclosed chair. Once at the baths, if she did not own them already, she was helped into garments of yellow linen—guaranteed *not* to cling when wet. She was also provided with a little floating wooden dish on which to place her handkerchief, nosegay and perfume.

English fiction often provides some of the liveliest portraits of the delights and ignominies likely to be found in Bath, both in the time of Beau Nash and afterwards. Sam Weller, Mr. Pickwick's irrepressible servant, insisted that the waters had a "wery strong flavour o' warm flat irons." Jane Austen used the place memorably as a backdrop for romantic intrigue and languid comment. One of her characters recites a popular view: "For six weeks I allow Bath is pleasant enough; but beyond *that*, it is the most tiresome place in the world."

After soaking for about an hour in the steamy waters and exchanging the latest gossip, the visitor was wrapped in a flannel gown and sometimes sent back to bed. The truly determined usually dressed and repaired to the Pump Room to drink the waters. Alternatively, there might be a breakfast party in one of the public rooms (buttered buns were particularly recommended). From there, you could repair to morning service at the Abbey.

Fetched by the Beau to dance

Gentlemen often preferred to go to a coffeehouse and read the papers. Young women, who were generally barred from such places, could shop or stop at a bookseller. These establishments also served as private lending libraries, where, on payment of a modest subscription, you could rent pamphlets, novels and plays.

The whole purpose of a morning in Bath was to form a group for the evening's diversion, whether it was to be a play, a concert, dancing or cards. By four, one should be eating dinner since the balls began smartly at six. The company being assembled, the highest lady in rank was led forward by Beau Nash to dance the opening minuet, while everyone else watched. At the end of it, she would be escorted to her chair and the next lady in order of precedence would be fetched by Beau to dance. This procedure was followed until everyone who was anyone had danced, a process that usually took two hours. By nine or so the dancing would pause so that the gentlemen could hand around tea to the ladies. Gala occasions produced a substantial supper of sweetmeats, jellies, biscuits and cold ham washed down by wine.

Cards were less strenuous and more financially rewarding. The games to be played were many and some-

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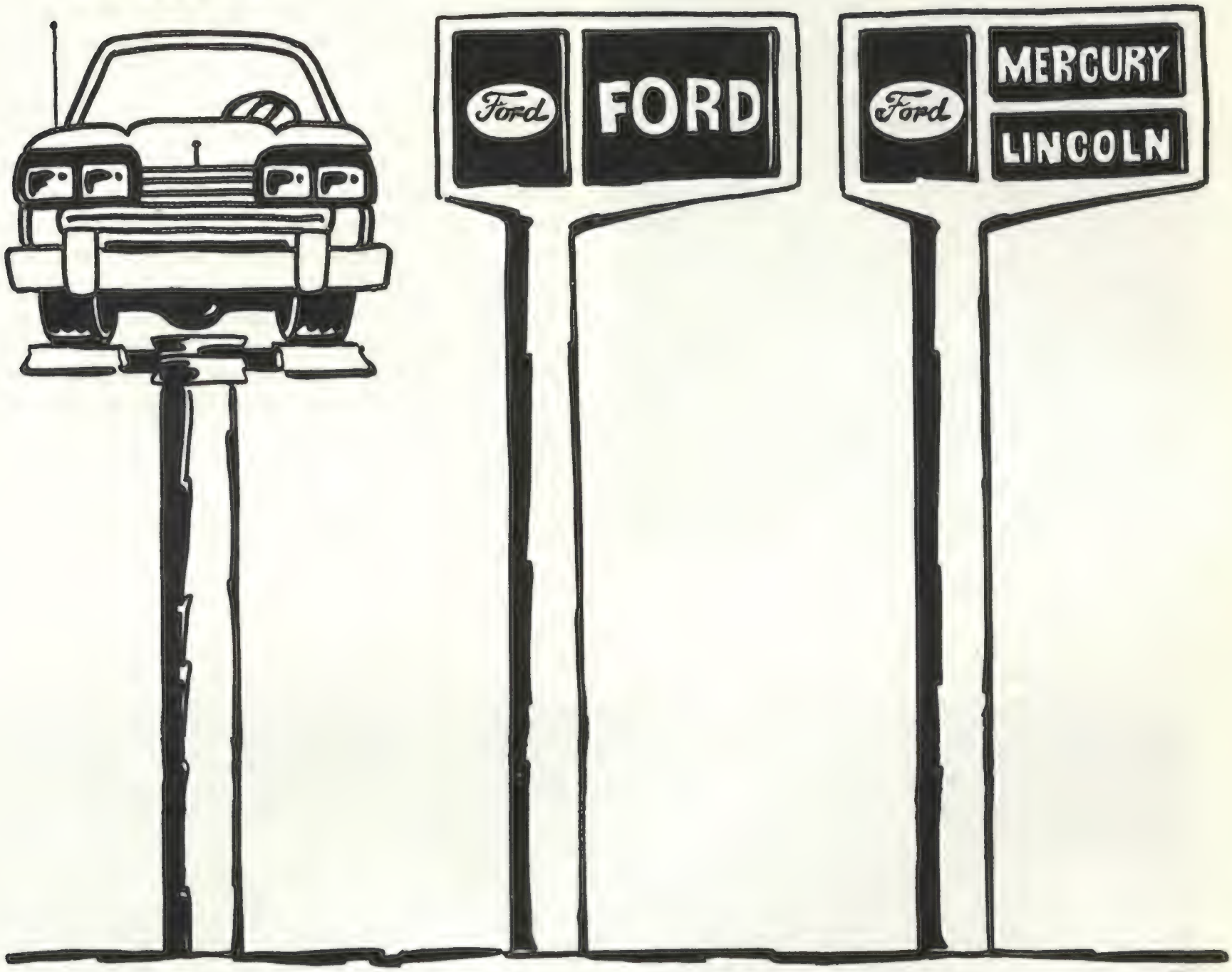

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times complicated, with suitably exotic names. Pharaoh. Ombre. Piquet. Basset. The decks of cards were equally varied. Mainly for decoration were cards depicting things like the Popish Plots, music from *The Beggar's Opera* and celebrated English victories. Everyone gambled—physicians even advised it on grounds that the excitement might do their patients good.

In that regard, some visitors to Bath, like Lord Chesterfield, averred they would far rather play with professionals than gentlemen. Chesterfield is supposed to have explained that if he played with a cardsharp and won he was sure to be paid, whereas he regretted that he could not say the same for gentlemen. Women gambled as a matter of course. And this, according to Sir Richard Steele, was a great virtue. Ladies who gambled "acquire such a boldness as raises them near the lordly creature man. Here [at Bath] they are taught such contempt of wealth as may dilate their minds . . . and I find my soul exalted when I see a lady sacrifice the fortune of her children with as little concern as a Spartan or a Roman dame."

There were naturally some people who did not view the scene with Steele's ironic eye. Mrs. John Adams, visiting Bath a little after Beau's time, found the sight of ladies casually seated at cards in public rooms a distinct affront to her morals. The town, she wrote, "is a place I should never visit a second time for pleasure." Others disapproved of gambling but for slightly different reasons. It brought in money, but it caused duels and ruined lives, despite the Beau's best efforts. The gambling habit went on making as many enemies as friends for Bath. Finally, in 1739, Parliament's famous Gaming Act came into effect, making some of the most ruinous card games illegal and requiring fines for gambling houses. New games were, of course, swiftly invented, but a fatal shadow had been cast across the tables. The first seeds of respectability had been sown and once that happened, could ruin be far behind?

As the years passed, Beau Nash grew fatter, redder, poorer and more tedious. Everyone knew his jokes by heart, which did not stop him from telling them, so that he was beginning to be avoided. By 1748 there was a different crowd, probably less admiring, capable of whispering that this most generous of men actually pocketed the money he collected for charity. His income from the tables dried up. He had to sell his carriage. Gradually he sold his furniture, his bibelots and even his prized collection of snuffboxes. But he kept the gold enamelled one given him in 1738 by Frederick Louis, Prince of Wales.

The most splendid prospect in Bath is provided by the semi-elliptical sweep of the Royal Crescent, a Palladian-style building with 114 Ionic columns that includes 30 houses ranged around a great lawn.

This most sociable of social arbiters now found himself almost alone, but not quite. In the final years of his life, though he could no longer maintain her properly, he was, so one story goes, cared for by his mistress, who took pity on him. She was Juliana Popjoy, or Papjoy, which may have been a coarse reference to the role she played in Nash's life, though he was equal to that. Once, when accused of being a whoremonger, he replied, "A man can no more be termed a whoremonger for having one whore in his house than a cheesemonger for having one cheese." It was Oliver Goldsmith who said that Nash had "too much merit not to become remarkable, yet too much folly to arrive at greatness." Great or not, the Beau was indomitable to the end.

After his death in 1761, Juliana vowed she would never sleep in a house again and wandered into the countryside to take her rest in a hollow tree. There her "strange pointed face, her black elf-locks, and bird-black eyes might be seen peering through the dreamy branches," as Edith Sitwell wrote. The house in which Beau lived still stands. In the silent morning hours, an impressionable visitor may hear, so they say, the sound of dancing and laughter. It is the kind of benign ghost story one would expect to find in Bath.

Nash's mistress, Juliana Popjoy, cared for him until he died, then, unhinged by grief, went to live in a tree.

Still used as apartments, it once housed notables like Charles Dickens' Mr. Pickwick, the Duke of York.

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SAFETY FIRST

By James Traub

It takes stamina and humor to ride abandoned rails

Two diehards find out that the only thing tougher than getting permission to ride old track is making mileage once you're there

Abandoned South Dakota rail route goes through tiny Scenic, where A.L. and C.W. visit Longhorn Saloon.

On a sunny morning last summer a battered 1968 Falcon pulled into a gas station in Yankton, South Dakota. In the front seat were the car's owner, Alan Freed, his sidekick, Craig D'Ooge, and the car's temporarily displaced chauffeur, Ghazi Azzabi. In the back seat, crushed into a corner by luggage, tool boxes, photographic equipment and an ice chest, was the author. Freed, curly-haired, blue-eyed and wiry, jumped out of the station wagon and gassed it up. Meanwhile D'Ooge, a hefty and deliberate fellow, sauntered back to a trailer hitched to the car. Chained to the trailer, like a stock car heading for the next race, was an odd yellow contraption with four flanged steel wheels. The vehicle was protected by a roof and a yellow windscreen.

Passers-by had been gaping at this soapbox car for the past 1,000 miles, as Azzabi drove it out from Washington, D.C. A kid in a pickup truck gawked at it now as D'Ooge unscrewed a cap on the gas tank and poured in a few gallons of regular and some oil. "You gonna take that thing out on the tracks?" asked the kid. "That's right," said D'Ooge, poker-faced, as if he were putting the kid on, a favorite pastime of his. But it was true; we were just about to ride across South Dakota—as well as on two short legs of a route in Idaho—at about 15 mph, in a Fairmont M19 speeder. That is, we would ride on the segments of rail that we found to be passable when we got there.

Flying white flags to designate an unscheduled run, Weed Route speeder crosses trestle near Avery, Idaho.

The previous evening Freed and D'Ooge had flown in from Washington to meet up with the speeder in Sioux City, Iowa. Freed is the president and chief executive of the Great Northeastern Pacific South & Western Railroad Company; D'Ooge is vice president for development and research. The firm is looking to fill a slot in outreach and promotion; as yet, however, the only other individual authorized to hold a Great Northeastern business card is a Dutchman charged with selling the firm's so far nonexistent customized china to European markets. Though the Great Northeastern has studiously adopted all the trappings of a great transcontinental railway, it has no rolling stock save the speeder, which Freed salvaged from a New England scrapyard, and two 19th-century velocipedes—three-wheeled wooden railroad handcars. Nor has it a schedule, which is why the speeder always flies the twin white flags that indicate an unscheduled train. The precaution is scarcely necessary, since, for reasons of safety as well as sentiment, the Great Northeastern only plies abandoned track. Thus the Great Northeastern's sobriquet, emblazoned atop its corporate stationery: The Weed Route. The executives, it should be added, are known as A.L. and C.W., in conformity with customary railway practice.

The Weed Route's dimensions are strictly mock-epic. C.W. likes to stroll into small towns, flash his

Photographs by Jorge Diaz

In the Badlands, weeds and flowers overgrow a flat stretch of old Milwaukee Road, abandoned since 1980.

On two-day side trip, speeder leaves the Milwaukee east-west South Dakota route and heads to Deadwood.

business card, and announce that he's arrived to buy up the railroad. But he writes reams of serious letters to railway executives requesting permission to use their track. Even abandoned track is private property, and using it without permission constitutes trespassing. The Great Northeastern takes its hobby most seriously. Aware of the perils of the rails, A.L. mans the speeder's controls with the vigilance of an engineer—which he once was. But A.L. and C.W. love the thing they spoof, and see it as something more than a ramble through the countryside. Travel by abandoned track offers a view of an America so deeply forgotten that it is presumed vanished. The railways made America, and then America began to shed the railways. Without the trains the little towns became isolated, eccentric and almost lovelorn.

But the Weed Route does not advertise itself as a free-floating Department of Folklore Studies. The director of an executive seminar program (A.L.) and a public affairs specialist at the Library of Congress (C.W.) have plenty of opportunity for scholarship and contemplation; what they lack, like most of us, is adventure. And the Great Northeastern has that one element common to all adventures, great and small—unpredictability. Sometimes the track on the most recent map has been turned into a state road by the time you arrive. Sometimes trees have grown up between the rails. And mechanical failure is a regular feature.

Day One: We began with magnificent expectations. We would start off in the southeast, at Yankton, and ride the 88 miles north and west to Platte, where the tracks ended. Then we would drive north and west to Chamberlain, riding from there all the way to Rapid City at the western edge of the state. There we would recover, at least in imagination, the Milwaukee's long-lost glory. In one great competitive spasm, from 1906 to 1909, the Milwaukee had flung down this southern branch route as well as the western extension of its great transcontinental route, across the northern part of this state and on to Seattle. (Later, in Idaho, we were to travel along this track.) Almost immediately thereafter, the railway went into a decline. It went bankrupt in 1925 and again in 1935 and began eliminating track. But only in the early 1980s did the Milwaukee abandon or sell its western track, including the transcontinental route from the Minnesota-South Dakota border all the way to Seattle.

That we were able to travel abandoned track at all was a testimony to someone's sense of history. Throughout the West much of the Milwaukee's track was torn up and sold for scrap, as if the life that roared into being with the trains were best paved over and speedily forgotten. But not in South Dakota: there the state government, in a burst of farsightedness or perhaps sentimentality, bought the track.

But we never put down the speeder in Yankton, or anywhere between there and Platte. When we drove out of Yankton and reached a railway-crossing sign at the top of a hill, we craned forward and fell silent: weeds stretched for miles where the track should have been. We were stymied. A state official had promised, more or less, that the track would be passable. So much for state officials; so much for promises. Then A.L. spied the tracks, covered by the road and buried be-

This abandoned stretch with its century-old trestles was laid in 1891 by the Chicago, Burlington & Quincy.

Frequent challenge to A.L.'s railroading skills—new road over the old track—sometimes caused derailment.

neath rocks, years of overgrowth and—worst of all—trees. We climbed back into the car and headed for Chamberlain, at the eastern bank of the Missouri.

It was here that we first put down the speeder. We parked below a Pizza Hut at the edge of a state highway, and gingerly unloaded it. A clear, deep dusk had fallen, and the sun was spreading a rippling gold wedge across the river. With A.L. at the throttle, C.W. slipped the crank into the shaft at the side of the engine and gave it a few smart turns. The engine coughed, caught, sneezed explosively, and the speeder chugged toward the Missouri.

We had begun, it turned out, in Speeder Heaven. As we rattled down the track we startled all its sleeping life into activity: butterflies flitted around us, grasshoppers pelted the windshield, and birds shot out from beneath the bridge. The weeds were low, the track was good. We rounded a bend and suddenly we were out over the broad Missouri. Cars passed to and fro on a bridge to the north; how commonplace they seemed! Alone on a high bridge, touched by the last rays of the sun, we felt majestic. We crossed the bridge, interrupted a volleyball game behind a trailer, and came to a dead stop in front of a stand of trees that had sprung up between the rails. To our right stood a shack and a rusting, green Pullman sleeper from around 1910. In better days it had been used by the track crews as an improvised inn. Our day was over, too.

Day Two: Before he left Washington, C.W. had telephoned the Murdo fire department in the middle of the night to check on track conditions. The conversation had gone as follows:

C.W.: Are there any trees out there?

Fireman: Trees?

C.W.: Yeah, you know, *trees*?

Fireman: You want any trees around here, you're going to have to *plant* 'em.

So the route ahead had looked good, as always—at least from a distance. We hoped to ride today from the first passable track we could find west of Chamberlain to Murdo and beyond—maybe 120 miles or so. We found clear track between the towns of Reliance and Kennebec and unloaded the speeder. We stood in the middle of endless, dun-colored prairie. The weeds undulated before a stiff breeze. The vast scale seemed to burlesque our miniature enterprise.

We set off in high spirits. Two hundred yards later we had our first mishap. We were heading uphill into damp weeds almost as high as the speeder, and we gradually slowed to a halt. Our helmsman ordered us to start pushing. As we inched our 600-pound monster uphill the loveliness began to drain out of the day.

The author, a free-lance writer who lives in New York, specializes in telecommunications and foreign issues. This was his first speeder trip.

One of C.W.'s favorite jobs: clearing rubble from rails so speeder can pass through tunnel to Deadwood.

C.W., a man who specializes in finding comfortable places to recline, loudly regretted our failure to pack a bulldozer.

We finally climbed back into the speeder and sailed along for a couple of miles. Then we smacked into a fallen branch, popped into the air, and derailed. Half a mile later we stalled. Several times we stopped to tighten the belt that engages the rear axle and thus provides acceleration. Once we were stymied by a tar road that a farmer had poured right over the tracks, a rather dramatic property claim. As the hours went by and our stops piled up, time and events grew increasingly scrambled. It was hot, and our faculties were slipping. Several times we stalled; other times we pushed. At some point somebody, probably A.L., said, "At least we haven't come to a fence yet." Immediately we pulled up in front of a barbed-wire fence. Farmers take fences very seriously, and don't like to have them damaged. So we yanked the fence up, rolled the speeder over the tracks, and put the fence right back where we found it. A few miles later we yanked up another fence; then a third. The novelty wore off.

In Deadwood, part of 100-year-old route is torn up by a scrap dealer; city hopes to preserve some of line.

By the time we had been out on the track for three hours we had 12 miles to our credit. As the grain elevator of Kennebec finally hove into view, the weeds turned into shrubs, and the shrubs into trees. We pushed the speeder over one tree. We chopped down another with a hatchet. We pushed the stupid machine to the road, and collapsed.

Driving west, checking out the track at crossings, we finally found passable rails again at the tiny town of Okaton—11 miles *past* Murdo. So much for late-night reports on track conditions. Again we set off on the rails. The unfamiliar sound of the machine—the put-put of the engine against the racket of the wheels—frightened a herd of antelope. We watched a column of them race toward us from the dark bowl of earth below. In perfect file they sprinted up the track just in front of us, bounded over it and raced up the facing hill. Darkness fell and the rails grew invisible. We seemed to be sailing across the prairie along some un-

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fathomable tide, part of the nighttime world of owl and deer.

Day Three: We began the day by driving a few miles out of Kadoka and turning off the highway at Weta. There was no town there; in fact there was nothing at all. We were in the middle of the arid and dreadful Badlands, driving through mountains of sculpted clay, scraped by wind and water over millions of years into fanciful shapes—pyramids and cubes and cylinders—whose tops were elaborately ridged, as if with molding.

By the time we set down the speeder at around 10 A.M. it was already over 90 degrees. We seemed to be poised at the edge of an oven. We rode quickly, awestruck and even appalled by the unearthly bleakness. Sometimes we passed by the edge of a butte, and we could see and even touch its pale, crumbling clay. The hills formed a wall behind us, so that we seemed to be enclosed in a desert. We saw few horses, fewer cows; once we spied a house miles away at the foot of a mountain. What if we ran out of gas? We decided to push on, hoping that a human being or two lived in the next town, Interior.

A tour with the mayor's husband

Interior turned out to have a road, a service station, a sign pointing to a restaurant somewhere, and a mayor. The mayor, Pat Harvey, worked the gas station with her husband, Donald. It would be safe to say that they were surprised to see us. The last passenger train, according to Donald Harvey, had come through in the early 1950s; the last freight, around ten years ago. Since then, silence. Donald Harvey was about ten years older than his wife, weather-roughened, thin-lipped and painfully deliberate. He was pleased enough, after some prompting, to recount Interior's quite odd history. Like so many of the towns along our route, Interior had lived and died with the railway. When the tracks were laid around 1907, what had been a scattered community of homesteaders became a railhead. At the time the town was called Black. But a few years later a letter arrived from the U.S. Department of the Interior, and everyone was so smitten by the name that they decided to adopt it. Or so the story goes.

Before he was born, said Harvey, Interior had "the third biggest rodeo in the world." The rodeo was held near the old railway station, so that the swells from Chicago scarcely had to leave the fancy Pullmans in which they rode down and spent the night. Thousands of people tore the town apart for days. Before the Depression, Harvey recalled, Interior had at least three bars, five cafés, a pool hall, three general stores, a hardware store, a lumber store. One side of Interior was destroyed by fire in 1937; a year or two later, the other side went up in flames. Now the old railway station sits on a farm 20 miles away. Donald Harvey, almost animated, insisted that we inspect the foundations lying in the weeds. The concrete was dated 1907.

Interior appeared to be about as depleted as a town could get until we arrived in Scenic, a former railhead now not far from the Oglala Sioux reservation, 30 miles and two ghost towns later. A tiny dog, and nothing else at all, moved in the town's only street, which was broad enough to be the boulevard of a city of 10,000. A few Indian men lounged in dusty lots. The frame buildings along the street were keeling over, planked up and stuck with posters advertising a vanished rodeo. Out behind this miniature town was what appeared to be the biggest used-car lot in South Dakota. At least 500 cars and trucks had been parked every which way in the midst of an open field. It turned out that the woman who owned virtually everything in Scenic also operated a car-parts business.

The general store sold a great many used and dusty articles—boots, shirts, socks, plants, jewelry, knives, velvet paintings. But its most precious object was the wholly intact jawbone of what appeared to be an ox, displayed inside a glass case. When I asked what it was, a stocky woman, later identified as the owner of the store and the cars, answered, "It's a titana; kind of like a dinosaur." I later learned that it was indeed the jaw of a titanothere, a prehistoric animal related not to the dinosaur but rather to the horse.

As I was leaving the store I noticed a boy who was squirming oddly. I looked down at his feet; he was break dancing.

Day Four: In the 1870s the Black Hills of South Dakota were the get-rich-quick capital of a get-rich-quick country. Prospectors were climbing all over one another in a spasm of gold fever. In 1891 the Chicago,

After navigating a road that crosses the tracks, C.W. and A.L. jump out to give slowed speeder a push.

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Between bouts on the rails, speeder rests on its trailer in front of the Franklin Hotel in Deadwood.

Burlington & Quincy Railroad brought a branch line up the center of the hills and into Deadwood. But the Burlington Northern, successor to the Chicago, Burlington & Quincy, ran its last freight train on that route October 24 of last year—a date that lives in infamy in some quarters.

For the next two days we would be taking temporary leave of the Milwaukee's track in favor of the route to Deadwood and back, a route that had been recommended for its beauty and isolation. That morning we had hosed all the impacted grasshopper parts out of the radiator, and eased out the clods of earth that were choking up the wheels; but the 47 miles from Hill City up to Deadwood were still slow going. For the first time we were running through mountains, laboring up grades so steep that it had taken two or three locomotives to haul freight. After the immense plains we seemed almost enfolded in the hills. We rode through 100-year-old tunnels built with arches of wooden beams, and over trestles supported on wooden piles. Once we tootled past the wreck of a massive gold-processing plant built right into the hillside, its peaked front all staved in.

We rode in the darkness, until we could only feel the hills on either side of us. Often enough we came to a road built over the tracks. A.L., who races a Porsche in his copious spare time, would slam on the hand brake at the last moment, rolling us over the gravel and back on the track on the other side. This was a bravura performance when it worked, though it sometimes made for a pretty messy derailment.

Deadwood was the first real town we had come to on the speeder. It was quite a shock. We waited at a busy road as cars whizzed by, and then crawled across like a fearful old lady. We passed through backyards and trailer parks, emerging across the street from an A&W. Finally we left the speeder in a parking lot, next to the old BN freight station and engine house. The main line of tracks through town had been cut off, it turned out, by a wholesale food warehouse.

Day Five: Deadwood used to be the most famous city in South Dakota, the home of Wild Bill Hickok (in the weeks before he was murdered) and Calamity Jane (until she took her mythic presence elsewhere), at the heart of the biggest gold-producing area in the Western hemisphere. Now that the boom has gone elsewhere, and even the brothels have closed, Deadwood keeps fat on a steady diet of tourists. The main street is given over to bars with Old West names, and buses leave regularly for the cemetery where Wild Bill and Calamity Jane are buried. But while the Wild West is a strictly commercial proposition, the railway is a far keener memory. Bill Walsh, one of the owners of the Franklin Hotel, used to hand the freight engineers coming off duty the keys to the bar, and assess the damages later. He sat in the cab of the last freight, and preserved the engineer's orders. "They still come in here to cry sometimes," he says, sounding like he wouldn't mind doing some crying himself.

But Deadwood won't give up the railway without a fight and is currently negotiating with the Burlington Northern, and the scrap dealer to whom much of the track has already been sold, to purchase a portion of the line. An outfit called the 1880 Train currently runs antique locomotives and railway cars on a ten-mile route out of Hill City; its president, Bill Heckman, hopes to expand this route, while other private interests want to run a separate excursion train between Deadwood and the neighboring town of Lead. It is a labor of commerce, of course, but also of love. City attorney Reed Richards, who is handling legal negotiations with the BN and the scrap dealer, is a member of that fraternity which is hypnotized by trains, as if he recalled a past life as an engineer.

The track we'd rolled in on was being torn up

As we were leaving Deadwood, the very track we had rolled in on (not a section the city of Deadwood wants to purchase) was being torn up by an enormous front-end loader, equipped with a custom-built grapple which slipped beneath the track and uprooted it. The scrap dealer moved along right beside this awesome vehicle, whacking out the ties with a sledgehammer. He had bought the track for about $10,000 a mile. It was too bad, he agreed with a shrug, that the track had to go; he hated to see it happen, but that was his business. He moved on to the next tie. And so,

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Riding the abandoned rails

between one hammer and one machine, 100 years of history, of memories, were being obliterated.

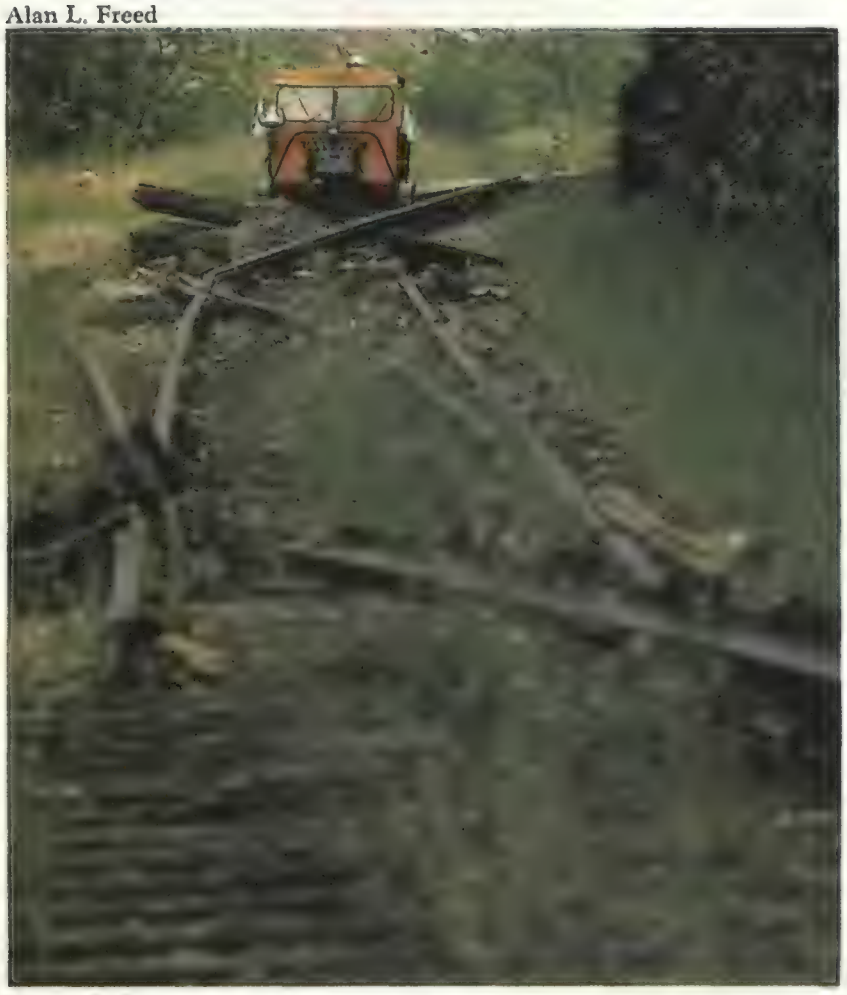
Day Six: Nobody save the scrap dealer has much use for abandoned track nowadays. Many train lines are slipping into the past. But in one area a significant stretch of the Milwaukee Road's transcontinental route west of Miles City, Montana, has remained in service. In northern Idaho, two months after the last Milwaukee employee was laid off in April 1980, the Potlatch Corp. stepped in and bought the railroad. The company decided to carry its own timber to the mills, though it hired a firm in San Diego to actually run the railroad. The trains don't run as often as they used to, but jobs, the track and a sense of continuity have been preserved.

In order to travel working track, the Weed Route had to make an unprecedented compromise: it agreed to accept a chaperon. We traveled throughout with a high-rail car, a pickup truck with retractable flange wheels, which is used to maintain and inspect track.

The trip from the depot in St. Maries to the railway's southern terminus at Bovill was oddly uneventful: we had no fences to dismantle, no weeds to fight through. I recalled a comment C.W. had made a few days before, as we stalled near Rochford. "You know," he said, to no one in particular, "this may seem perverse, but I'm actually *glad* we break down once in a while, as long as it doesn't take too long to fix." C.W. savored the accidental, the unexpected; he liked bad motels for their badness.

On the way back, A.L. put his boots up on the speeder's windscreen and let the machine more or less run itself. Before he got a master's from American University and joined the paper-chasing class, A.L. led a fairly picaresque life. His father was with the railroad, and A.L. decided to do likewise. He prevailed on his father to arrange for him an interview with a Penn Central executive. Impressed with the young graduate, the official said that he would be happy to find a place in the executive training program. "But you don't understand," said A.L. "I want to be an engineer." A.L. recalls the look of shock that passed over the executive's face. "Young man," the other finally said, "I have a son in college, and it's costing me $10,000 a year. If he said he wanted to be an engineer, I'd kill him." But A.L. persevered, working as a locomotive fireman for three years and, for the next two, as a full-fledged engineer. Now, a scant ten years later, he is the chief operating officer of the Weed Route.

Alan L. Freed



Speeder comes to stop near Avery, Idaho—end of the line; next working track on old route is 700 miles east.

Imagining what the surveyors had seen

Day Seven: When the westward expansion of the Milwaukee to Seattle was authorized in 1905, surveyors set off into wild territory. In one 50-mile stretch in Montana they found only a single dwelling. In the area around Bovill there was nothing at all save the bear, the elk and the deer. As we rode the 50-mile route to Avery, east from St. Maries, it was not at all hard to imagine what the surveyors must have seen. The track itself barely made a mark on the grandiose landscape, the finest yet. We kept to the slow rhythm of the St. Joe River as it cuts its way through the mountains in long, lazy curves. We stayed inside the river

valley, looking straight up at cliffs and mountains covered with pine, cedar, fir, cottonwood. When the sun appeared we could see the silver glitter of the aspen leaves, and the brilliant light green of the grass on islands in the river. We saw no towns, few trailers, few animals. The old stations were gone. The route had almost returned to its primitive state.

As we climbed up to Avery the river diminished to a trickle, and we began to smell the scent of resin. Pine trees, shorn of their bark and limbs, were piled on flatbed cars in a long file reaching into town. Avery was the same story retold. Named after a daughter of William Rockefeller, who sat on the board of the Milwaukee, the town came into being when the rails came through in 1908, reached its peak around World War I, and went into a long decline. Now it has only a scattering of houses, though almost all of them have their own satellite dishes. As we skirted the remains of the town we saw an odd five-door garage—a speeder shed, from the forgotten days when speeders were used here. It was empty.

And then we saw something almost chilling—the end of the line. We had arrived at the eastern edge of Potlatch's patch of railway. In the center of the track lay a pile of ties and uprooted metal. Each tie, exposed after decades, bore an orange rust mark. A switch had been knocked over, and lay in the dust. Another had been flung into the weeds. Beyond the heap of metal, the gravel roadbed tapered down and vanished into a dirt path. The path rolled on uphill over a dramatic curved trestle and away to the east. Only 20 years ago the fabulous Olympian Hiawatha had arced like a bow around the trestle as it charged back through Montana, South Dakota and beyond.

Now as we faced eastward, we seemed to stand at the edge of a quaint island, a delicately preserved place, looking out at the mainland where real life went on. So we had felt that first morning in South Dakota, laboring uphill while cars sped by at the edge of our vision. The little islands, in strange, obscure places that nobody bothers about, are shrinking all the time. Railway track is being abandoned apace. It's a melancholy situation, of course, but it promises to keep the Weed Route in business for a long time.

In front of an abandoned yard office in Avery, A.L. and C.W. take a break. At one time, Avery was the only stop between Missoula and Spokane for Milwaukee Road's Train No. 15—the famous Olympian Hiawatha.

Beauty in the rough.

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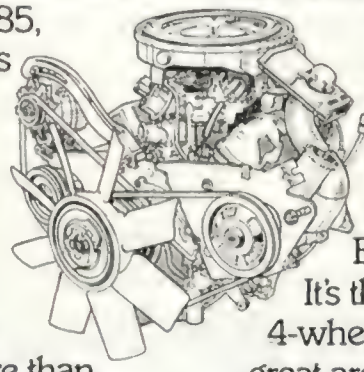

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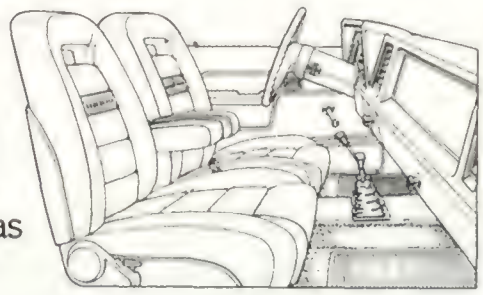

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Get it together. Buckle up.

By Helen Dudar

Art is looking up with a sculpture gallery in the sky

George Ablah, art collector and real-estate tycoon, fitted out his private Gulfstream jet with a cool $3 million worth of fine art

In his shiny new custom-decorated Gulfstream II, George Ablah flies around the country surrounded by a few of the good things in life: the soothing glow of a pale coral and blue interior, gold-plated fittings in every direction, a display of art that has transformed a flying office into a little gallery in the sky.

From his place at the back of the plane, Ablah can see the white marble Rodin and the Marini as well as their reflections in the mirrored surfaces of the bulkheads. Across the aisle, a sleek bronze Brancusi head pleases the eye. The two Moore pieces and the Arp are behind him, the Botero sits on a counter in the galley, and the Giacometti figure waits in lonely splendor in the loo.

Ablah is a Kansas real-estate dervish and a patron of the arts who, in record time, put together the world's largest collection of Henry Moore sculptures and has lately lent some of them to New York City. An engaging blend of canny extravagance and freewheeling humility, he is also a son of the heartland who personally answers every phone message within 24 hours, makes his own peanut-butter canapés in the kitchen of his New York apartment, consumes a gallon of coffee a day out of paper cups, and trots through the corridors of power decked out in black polyester slacks, Ban-Lon knit pullover and burgundy cowboy boots.

In New York, Ablah gets around in a chauffeured limousine, but in Wichita, where his home and headquarters are located, he drives his own Mercedes with plates reading LIL GEO. Of modest but by no means diminutive stature, Ablah grew up in a crowd that nearly always included at least one larger George, and thus required distinguishing adjectives. It is a measure of his immeasurable self-confidence that he never even considered abandoning the label. Indeed, in the jungles of modern dealing, he instinctively knew how disarming it could be; in business and art, he is still likely to introduce himself as Little George.

He is 55 and came—nay, stumbled—late and untutored on the life-enhancing joys of art and the glories of acquisition. When he began to collect, Ablah set upon the activity with the same adventurous energy he has spent on the accumulation of means. By the time he got around to outfitting his 14-passenger plane this year, nobody even tried to talk him out of finding and installing $3 million worth of sculpture in it.

Not too long before, a major New York dealer did make an effort to persuade him that the notion of assembling a large group of Moore works at this late date was foolhardy. "George, it's ridiculous, it's too expensive," Douglas Walla, executive vice president of the Marlborough Gallery, recalls having told him. Nevertheless, Walla assisted in the quest, and 18 months later Ablah owned 22 monumental pieces, 38 working models and 40 maquettes. In the same period, he also bought 17 Botero figures and ten life-size Zunigas. "When you work for George," an executive of his firm says, "you're always in a rush."

The Moore collection, which cost Ablah about $20 million, lacks only a seminal monumental masterwork, a full-scale *King and Queen*, for example. He wants one badly, but not badly enough to meet the prices which began to escalate beyond the $3 million mark soon after he entered the market.

Ablah doesn't enjoy bargaining. He works by a set of heartfelt rules, the first of which is that minutes are always worth more than money. Sitting in his airplane one evening with a paper cup of coffee resting on the fine cream leather surface of his worktable, he said, "The truth of it is that the most valuable commodity in my life is time. I wouldn't waste my time dickering.

In mirrored aircraft-cabin art gallery, George Ablah is flanked by a Jean Arp (right) and two Henry Moores. Rodin's twice-reflected pure-white *Faunus* becomes marble triplets in plane's specially designed niche.

Photographs by Marvin E. Newman

Sculpture gallery in the sky

Francisco Zuniga's elemental *Rosa on a Chair* inhabits Ablah's Blue Hill office park, Pearl River, New York.

I don't measure things in dollars and I don't feel I've accomplished anything by cutting the price. I feel I've accomplished something by buying something wonderful at a fair price."

"Fair" turns up in Ablah's talk nearly as often as the correlative term "sharing." As an investor and as a collector, Ablah says he has always allowed for the needs of the person on the other side of the deal. With his bumpkin costume and his casually barbered hair and undisciplined midsection—he nibbles a lot—and large ready smile and flow of voluble talk, he exudes so much down-home sincerity that one is tempted to doubt him. But there is no mask. People who have seen him in action agree that, although not without guile, Ablah is pretty much what he appears to be, an open, direct man with, in a friend's phrase, "a great instinct for success." This has been achieved with the help of a clutch of copybook maxims, not the least of which is "Liking yourself gives you the strength to walk through walls."

On the Gulfstream that night, the steward unobtrusively passed plates of crudités, cold shrimp, little sandwiches, fruit and cookies, and the proprietor had some of each. Across the aisle sat Virginia Ablah, a lively, cheerful woman who is her husband's partner in all his ventures except dress: her costumes are soignée and expensive and she likes diamonds.

The Ablahs and a few staff members were flying home after the usual half-week in New York, part of it spent seeing to final touches on an extraordinary display of their art. They had arranged for a seven-month loan of 26 big Moores to be set up in the parks and other public places of the city's five boroughs, and they were paying the full costs of installation. Just preparing the sculpture to withstand pollution, pigeon droppings and graffiti artists had cost 500 man-hours per piece and a total of $150,000.

Beautiful things in public places

Even now that he has learned to love art, Ablah isn't much given to touring museums, and he knows he is not alone. The park loan, risky though it may seem, was a way of displaying "some beautiful things" in places where great numbers of people might encounter them. "Virginia and I used to hide all our major possessions. They embarrassed us and made us feel like we were bragging. It wasn't false humility; it was what we thought was the thing to do. Then we found out that the most beautiful part of owning something is sharing it."

The route to large-scale owning and sharing was potholed and circuitous. Ablah spent his early years, he insists, mired in consistently unprofitable deals. "When I married Virginia, I was 30 and I had failed

Corralled by upholstered seat backs, Marino Marini's *Figure on Horse* seems an anachronism at 30,000 feet.

Abstracted elements of cabin are reflected in highly polished surface of Brancusi's famous *Sleeping Muse.*

at almost everything: filling station, liquor store, restaurant, a machine-tool company. I drove a cab; I drove a truck. I was a contractor at 19 and failed at that." The only mistake he never made, he notes, was failing to learn from failure.

Ablah is the oldest son, one of four offspring of a Lebanese Christian couple who were brought here in childhood. His father developed a thriving restaurant-and hotel-supply business and owned a chain of 11 restaurants. Never an assiduous student, George tried college twice; he flunked out of Kansas University and later left Wichita State after a brief sojourn. At 28, he met his wife-to-be, a divorcée with two young children. In addition to each other, they shared a fascination for real estate and oil prospecting, and began working together on likely projects.

One week he and Virginia, by then engaged, traveled to western Kansas to watch the drilling of one of his wildcat wells. "Oil shot up. We were covered with it," she recalls. "It was very exciting. George said, 'Let's get married.' Ten days later, we were off to be married. By the time we got home, the well was plugged—it was a dry hole. So we started out with a negative net worth."

Both are fierce optimists. It didn't occur to either of them to worry. A few months later, Ablah, alone this time, saw another test go bad, thereby increasing his negative net worth. At the Dallas airport, he bought a cowboy hat for his recently acquired son. Because it was easier to wear than to carry aboard the plane, he put it on; because his fancy urban duds looked wrong with it, he removed his tie and jacket.

"By the time I got to Wichita, I was happy as hell, relieved. I was laughing. My wife saw me coming down the ramp and she couldn't believe it." Until then, Ablah had been one of the snappiest dressers in town. The next morning, he had the Salvation Army haul away his pricey wardrobe, replacing it with casual wear. "It was very symbolic to him," Virginia Ablah recounts. "He wanted to get the values where he felt they belonged." Moreover, as Ablah likes to say, "From that moment on, the Lord smiled on me."

It did not hurt that for years they worked without office help, putting in 16-hour days, pausing only for dinner with the family which, in time, grew by three more children. Even now they run a lean operation, a kind of luxury mom-and-pop shop. Soon new wells under the standard of the Little George Oil Company began to gush generously. Soon Ablah, who had done renovation work on a small scale, persuaded Pitney Bowes that he was the man to put up their office buildings around the country. Soon he was building for other major firms.

Before he was 35, Ablah had made his first million and was bored with the problems of building from scratch. He had also discovered in himself a talent as a "turkey hunter," trade jargon for an investor who picks up dead or dying property cheaply, fixes it quickly and smartly, and sells it at a healthy profit. Ablah enjoys risk. "A found turkey is my crap table," he concedes. A cagey gambler, he roamed the states developing deals. Along the way, he picked up a Hilton hotel in Chicago, a one-half interest in a real-estate company in Dallas and a major share of an aviation company in Wichita. Some years ago, as the property market recovered from a slump, Ablah was

Helen Dudar lives in Manhattan where she writes on cultural subjects. She last wrote about the Dallas Museum of Art, SMITHSONIAN, *May 1984.*

Sculpture gallery in the sky

Lent by Ablah, Moore's *Two Piece Reclining Figure: Points,* rests on anchored float in Central Park pond.

told by the largest real-estate broker in the United States that during a single six-month period he had bought and sold more property than any other investor in the country.

He had also found art. The summer after their elder daughter, Carol, finished high school, she asked for a trip abroad and Ablah ferried her to Europe. A reluctant sightseer, he "got tired of looking at beat-up old rocks" and took to waiting in the car while she visited monuments and ruins. One day in Rome, parked outside a church whose name he still does not know, he began to worry that she had been gone for a long time and walked in to find her. The place was crowded. He got caught in a line edging toward "some big white rock." Suddenly he was standing in front of it, transfixed and forever altered. The "rock" was Michelangelo's powerful *Moses* and it held him there, mesmerized, for more minutes than he can remember.

Home again, he began exploring art galleries. He bought a Remington bronze; he discovered Impressionist art and acquired a Monet *Water Lilies,* a Bonnard landscape, a Renoir portrait. Ablah learned about art in a fairly unconventional way. He is no reader, has not opened a book or more than glanced at a newspaper for years. His explanation is that he will not allow himself to be "programmed," as if it were impossible to argue with print.

He learns by eye and ear, both highly developed instruments, and he has a brilliant memory for visual detail. Frank Mills, a vice president of his firm, says that Ablah can take a swift tour of a property and six months later accurately recite all its salient features. Larry Shar, a New York art conservator who has become an adviser, finds he applies the same concentration to art: "George looks harder and more intensely and more sensitively than most people." At Ablah's request, Shar once assembled a library of several hundred fine-art books and shipped them to Wichita; Ablah advanced his education by studying the pictures and ignoring the text.

A gallery in an attaché case

His Impressionist collection survives only in a set of transparencies he carries in his battered attaché case and in mournful reproductions hanging on the wall of his Wichita office. At auction, his 20 paintings brought prices three times their original cost. But he loved them and wept when he saw them unloaded in New York from his old Learjet. They were sold after a burglary scare because it did not seem worth imperiling human life for priceless art. In their place at home went scores of small, mostly American works, good but not great pieces by the likes of Whistler, Eakins, Hassam and Prendergast, among others.

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Meanwhile, Ablah had begun to attract national attention as an investor. In 1979, he and a partner bought Chrysler Realty, a purchase consisting of 800 dealership properties belonging to what then appeared to be a dying automaker. "In the eyes of every bank in the country, it was the dumbest buy on Earth," Ablah recalls. A few years later, Chrysler, back on its feet, retrieved its subsidiary for what Ablah likes to call "a major reward."

After that, he took on Blue Hill, a failing suburban two-building office complex in Rockland County, New York, and trade gossip saw him going broke. Ablah poured something like $40 million into its austere interiors and grounds, and now stands to profit prodigiously. As the new owner, he decided one day to do something for Blue Hill on the order of the fine PepsiCo Collection at Purchase, New York, and began consulting knowledgeable friends. Doug Walla and Larry Shar were enlisted to help; for weeks at daily breakfast meetings, the three men rated modern sculptors and ruminated about Moore, whom Ablah favored. At the time, he owned one full-size Moore, and although most semiabstract art does not attract him, he responds strongly to the erotic elements of much of Moore's work.

If Ablah were going to collect Moore on the scale he was contemplating, Walla felt he should meet the artist. So they boarded a Concorde to England for a sleepless three-day trip during which the three men never stopped talking about the artist, except for the few hours when they talked to the artist himself. On his return, Ablah was ready to buy; Moore works were hunted down in Italy, London, Tokyo and many states. Moore, aged and frail though he is, offered to oversee the production of three pieces that had never before been cast.

An impressive array of the work wound up at Blue Hill, but many major pieces sat in a New Jersey warehouse while everyone tried to figure out how to begin showing them to a larger public. In the end, New York seemed a nice start. The entire undertaking has cost Ablah well over $2 million, but for a man who blisses out on sharing, it's hard to beat a site with a surrounding population of 8,286,000 souls.

Last spring, New York City opened seven-month-long, five-borough-wide show of 26 Moore sculptures, on loan from George and Virginia Ablah. Here, in Central Park's Sheep Meadow, stands his *Large Spindle Piece.*

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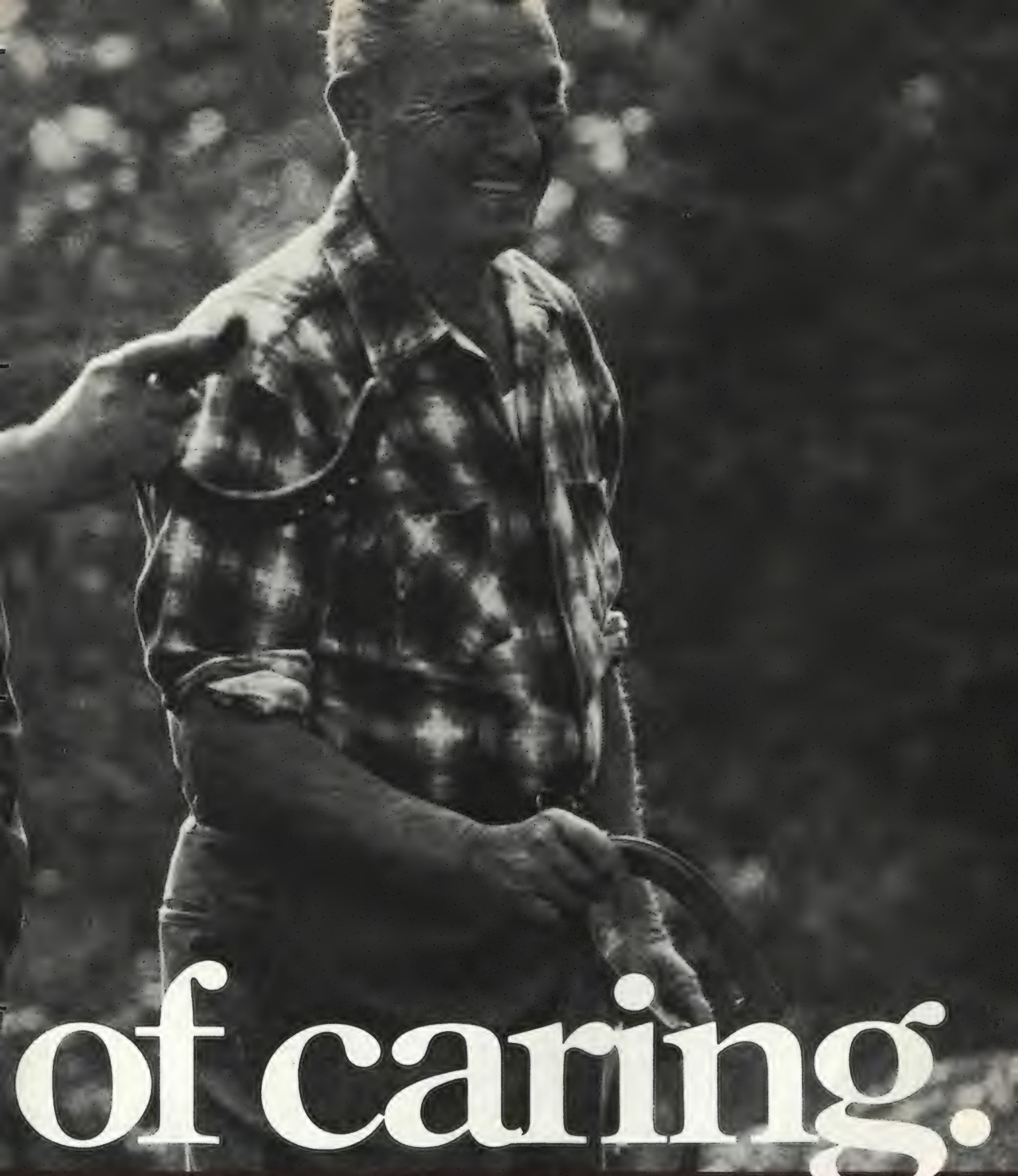

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By Doug Hand

The beaver's tale: out of the woods and into hot water

After a close brush with extinction, beavers are building all over the country these days, but a lot of people resent their domineering ways

It was dusk near the Quabbin Reservoir in central Massachusetts and as I lay on my stomach in the tall grass, my arms propped up on my rucksack, I scanned the pond in front of me with a pair of binoculars. On the opposite shore, across a broad expanse of water lilies and gray tree stumps, was a solid mound of sticks and mud about six feet high and 12 feet across. It was a beaver lodge. I was spying on it in hopes of seeing the occupants busily engaged in the activity for which they are so well known—building things.

The beaver is North America's largest rodent. As such, it is a close relative of two creatures that are not held in particularly high regard by most connoisseurs of wildlife, the porcupine and the rat. Even so, the beaver has several qualities that endear it to people: it is monogamous and lives in a family unit; it is gentle and clean; it is absolutely industrious.

The beaver's legendary capacity for hard work has produced some astonishing results. In British Columbia, for example, one ambitious creature felled a cottonwood tree that was 110 feet tall and more than five feet thick. In New Hampshire, beavers constructed a dam that was three-fourths of a mile long and the body of water that it created contained no fewer than 40 lodges. In Colorado, beavers were responsible for the appearance of a canal that was a yard deep and ran for 750 feet. Each adult beaver in Massachusetts, according to one researcher's calculations, cuts down more than a ton of wood every year.

Beavers appear to lead such exemplary lives that a onetime trapper once rather romantically observed that "beavers follow close to the line of the Ten Commandments." The Ten Commandments don't mention anything about building dams, lodges and canals, however, and the beaver's penchant for doing so has got it into a lot of hot water lately. Fishermen in the Midwest and New England are complaining about beaver dams that spoil streams for trout and, in the Southeast, lumbermen object whenever the animals flood out valuable stands of commercial timber. But some beaver experts champion a more charitable view. Historically, they say, this creature's impact on the environment has been tremendously significant, and its potential as a practical conservation resource is receiving more and more attention.

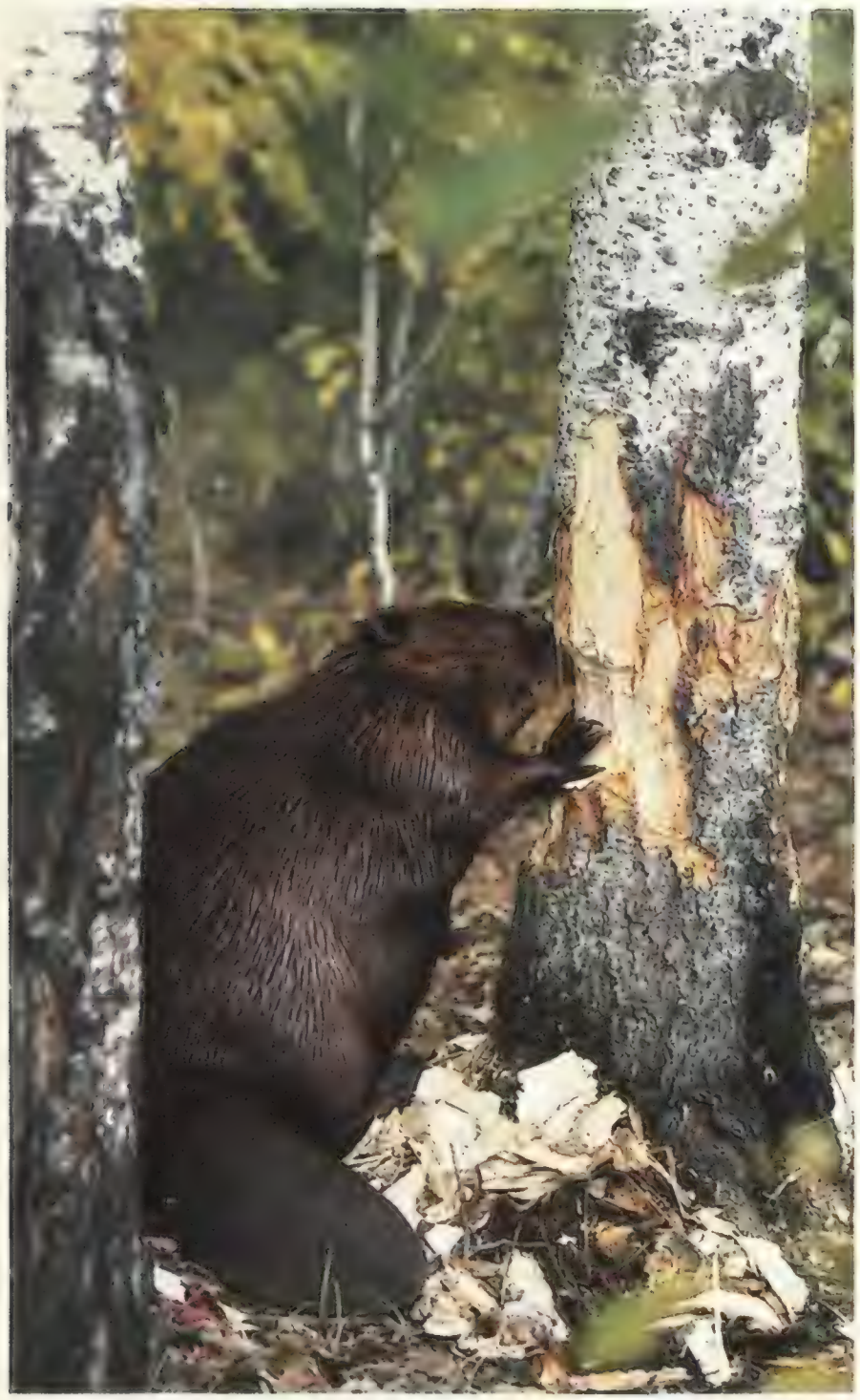
When it comes to modifying the landscape in a major way, the beaver ranks second only to Man among all living creatures. "Some people think of the beaver the same way they think of the gypsy moth [SMITHSONIAN, May 1984]," says Robert Naiman, a scientist who has been studying beavers in Canada for several years. "They think it just comes through and eats and destroys. What they don't understand is the fact that for centuries this animal has controlled the character of the forests and streams that it occupies."

The animals I was watching in Massachusetts last summer didn't seem to be controlling much of anything. A typical beaver lodge contains two adults, several yearlings and a litter of two to five kits born in May or June, fully furred, with eyes open and teeth already cut. The Quabbin lodge had only three inhabitants, two adults and a yearling. On each of my first

A beaver chews its own destiny, gnawing off a branch that may be used to help enlarge its watery domain.

The beaver's controversial comeback

There's no shortage of material for this mason's lodge. The beaver takes care of leaks with dollops of mud.



Putting the bite on an aspen tree, a furry lumberjack assumes the beaver's characteristic cutting posture.

three evenings in the field, the beavers emerged about an hour before dusk, immediately caught my scent and disappeared.

My fourth night out was different. There was no warning slap of a paddlelike tail on the water. Instead, the creatures quietly entered the pond from their lodge's underwater passageway and began to swim back and forth, feeding on water plants and making silent dives. Physically, the beaver is well adapted to its watery work. Valves close off its nose and ears, clear membranes slide over its eyes, and skin flaps seal the mouth, leaving the front incisors exposed for carrying branches. A big liver and large lungs allow it to stay submerged for five to ten minutes—occasionally for as long as 15 minutes at a time.

In a few months, I reflected, these same creatures would be working hard to prepare for winter, storing branches in a sunken cache near the lodge. When the pond froze, they would be able to leave the lodge through the underwater passageways, take a branch from the cache and return to the lodge to feed. Tonight, however, they seemed to be relaxing.

A white-tailed deer and her fawn came to the opposite shore to drink. A kingfisher hovered over a thicket before landing and thrusting its bushy crest skyward. Then the darker of the two adult beavers began to swim calmly into the lower part of the pond toward their dam.

I'd inflicted some superficial damage on the structure earlier in the day to see if that would stir up any action. A formidable mesh of branches, grasses, mud and rocks, it was about 25 feet long, five feet high and three feet thick. It was bowed slightly into the current. The beaver positioned itself directly opposite the break I'd made and drifted right into it. First, it wedged its bulky, strongly muscled body across the break; then, it stood on its hind legs, its nostrils flar-

In Minnesota pond, hungry beaver strips bark from winter larder. Submerged food stays fresh until spring.

ing. It was medium-size, weighing perhaps 45 pounds. Its fur was chestnut brown. A full-grown adult beaver is about four feet long, including its foot-long tail, and usually weighs 35 to 55 pounds. The largest beaver on record, caught 60 years ago in the Iron River in northern Wisconsin, weighed 110 pounds.

After dunking its head several times, my Massachusetts beaver slid back into the pond and swam swiftly to the far shore where a dead tree was submerged. A single branch was sticking out of the water and the beaver grasped it with its flexible five-toed front paws. Hauling itself out of the water, the beaver gnawed through the branch in about 30 seconds. It slid back into the pond, swam to the break and, with several violent shakes of its head, jammed the branch into place. It was a warm and humid evening, but when I saw the beaver put that branch in the dam, I actually shivered. That was just what I'd been waiting for so long to see.

The light was fading and soon I could scarcely make out the dam as the beaver continued to work on it. It was time to leave. I was picking my way through the trees when I heard a loud *slap* on the water nearby. I looked down and there, less than five feet away, was a beaver staring up at me. I stared back. Mosquitoes alighted on my ears, my lips, my eyes. I tried to ignore them but it was no use. When I gave in and shook off the mosquitoes with a grunt, the beaver disappeared.

It couldn't have known, of course, that I only wanted to look and wonder. Most of the beaver's experience with humans has been of a different sort. When the 19th-century American philosopher Henry David Thoreau observed that "we would give more for a beaver hat than to preserve the intelligence of the whole race of beavers," he wasn't kidding. The quest for beaver fur was the driving force behind much of the westward exploration that took place in North America in the 19th century and it was an era that the beaver just barely survived.

Explorers Meriwether Lewis and William Clark started up the Missouri River in 1804 and then traveled on to the Pacific. One of their primary goals was to find a route that would enable America to capture the Northwestern fur trade from Canada. Competition for fur was already going on when Jacques Cartier sailed up the St. Lawrence River to the site of Montreal in 1535. Europeans struggled to dominate the trade, and Indian tribes in Canada fought one another for control of beaver-rich territory where their hunting parties harvested the animals.

After the French and Indian War, when France ceded all of its North American possessions east of the Mississippi to England, the Hudson's Bay Company controlled the Eastern fur trade. The North West Company of Montreal developed the trade in the West, extending its operations to the Arctic in the north, the Rockies to the west and the Big Bend of the Missouri River to the south. It was the canoe route of the North West Company that President Thomas Jefferson wanted to subvert by finding a better passage to the Pacific Northwest.

The fur trade reached its peak in the mid-1880s. By then, John Jacob Astor's Pacific Fur Company had built Fort Astoria at the mouth of the Columbia River, the Hudson's Bay Company had absorbed the North West Company and the steel trap had been invented, all of which increased the harvest of fur—principally beaver, but also marten, fisher, ermine, otter and mink. The Hudson's Bay Company sold nearly three

Pond behind a Wyoming dam helps protect beaver lodge from predators and may also reduce soil erosion.

million beaver skins in London between 1853 and 1877. American naturalist Ernest Thompson Seton estimated that the combined annual total brought out by the American Fur Company and the Hudson's Bay Company between 1860 and 1870 was 150,000. He added, however, that since the Indians used as many beaver pelts as they sold and seldom saved the poorer quality skins of those taken in summer, "500,000 per annum is more likely to represent the aggregate destruction by man." Different yearly totals can be found in different sources, but the end result never varies. Ethnologist Lewis Morgan wrote in the 1860s that beavers "have now substantially disappeared from the United States east of the Rocky Mountains." By 1900 the beaver, whose North American population was estimated by Seton at 60 million prior to the arrival of Europeans, was nearly exterminated.

Those who slaughtered the beaver for fashion apparently didn't spend much time studying its behavior. Myths and old-wives' tales abounded. Beavers were said to "assemble in companies sometimes two or three hundred" to construct places to live. They were said to carry mud on their tails, using them to plaster their houses as a human would use a trowel. Castoreum, a substance the beaver uses in scent-marking, was said to be a miraculous medicine that, if taken up the nose, would cause sneezing and clear the brain or, if rubbed on the head, would ensure a prodigious memory.

There was nothing mythical, however, about the beaver's brush with extinction, and near the turn of the century several states adopted laws to protect the remaining animals. In Montana and the Dakotas, worried ranchers lobbied for action after concluding that the loss of the beaver had resulted in drought. In New York, a program to repopulate the beaver was started with the purchase of seven animals from the Canadian

Researcher Robert Naiman assesses nutritional value of twig cut by beaver near a lake in wilds of Quebec.

Adult and young waddle from a pond into forest. One female may bear two to five offspring every year.

exhibit at the St. Louis world's fair in 1904. An additional 14 were imported from Yellowstone National Park in Wyoming in 1906, and by 1915 it was estimated that several thousand beavers were thriving in upper New York's lakes and streams. Today, estimates of the beaver population in North America range from six to 12 million, but most experts caution that such figures don't mean very much. Even within a particular state, wildlife managers have only a rough idea of how many beavers are there.

The beaver's extraordinary recovery has had a mixed reception. Wildlife officials in a number of states have been forced to practice "management by nuisance complaint," spending thousands of dollars to trap, shoot or relocate beavers that have dammed culverts, flooded roads and fields and gnawed down ornamental trees. In the Southeast, the flooding of timber-company woodlands by beavers has produced damages estimated in the millions. In New York, Minnesota and Wisconsin, fishermen have called for intensified trapping of beavers in certain areas because their numerous dams slow the water flow in streams and raise its temperature, making it unsuitable for trout.

Certainly not everyone is unhappy about the beaver's conspicuous return. Nature lovers, who missed seeing the creatures on their favorite lakes and streams, have been pleased to welcome them back. And so, ironically, have trappers. Beaver pelts are still being used by the American fur industry for coats, jackets, trimmings and linings. Consequently, thousands of outdoorsmen are once again out trapping the animals for

Unlike many other mammals, beavers are born with their eyes open, their teeth cut and their pelts grown.

Typically conical lodge has ventilation on top and passageways located below waterline to foil predators.

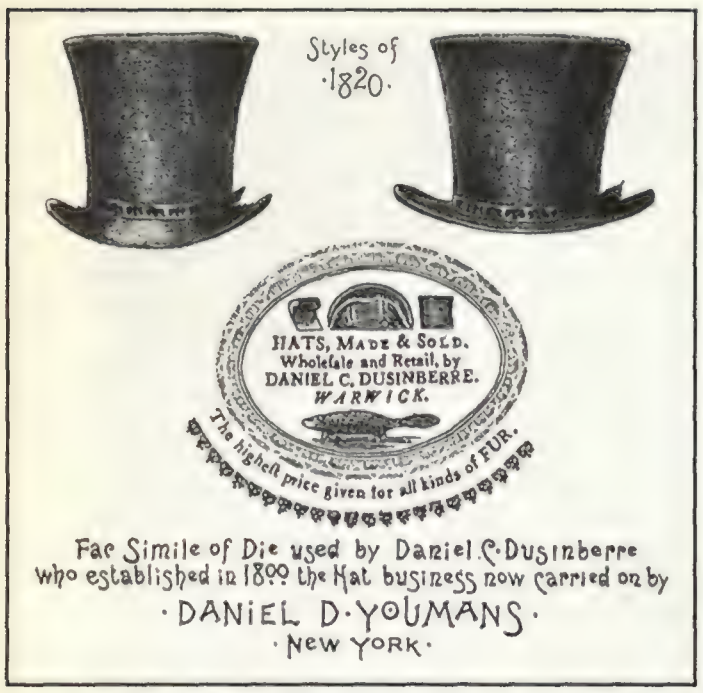
fun and profit—though there hasn't been much of the latter lately. A top-quality pelt may fetch only around $40 or $50—and most average considerably less—but that doesn't seem to be a deterrent. More than 200,000 beavers are being trapped, "pelted out" and sold each year. In the 1979-80 trapping season the figure was closer to a million.

Given that kind of pressure, how do we know that the animal is not headed for trouble again? According to Joseph Larson, a professor of wildlife biology at the University of Massachusetts and one of the country's top beaver experts, the beaver's survival is simply not an issue today. "Trapping is highly regulated," Larson says. "Wildlife managers keep very close tabs on the animals that are harvested every year and their data on reproductive rates, age and sex ratios tell them that trapping is not a threat to the species."

Some wildlife scientists are "trapping" beavers for a different reason. Bruce Smith and other biologists with the Bureau of Land Management have been transplanting captured animals back into the streams around Rock Springs, Wyoming, in an apparently successful attempt to stem erosion. At one time, many streams in the West were full of beavers and the animals played a key role in maintaining watershed stability. With settlement, however, cattle appeared and competed with beavers, destroying vegetation needed for food and building. When the beaver dams disappeared, erosion obliterated the meadows that once bordered the streams. At this writing, Smith's beavers have built more than two dozen dams. The University of Wyoming is carrying on a similar project and the state of Utah is anticipating success with its own beaver "work crews."

In Canada, wildlife biologist Robert Naiman is studying the beaver's ability to bring about large-scale topographic changes over long periods of time. A 36-year-old stream ecologist, Naiman directs the work of the Woods Hole Oceanographic Institution's research station in Quebec, 25 miles east of Sept-Iles, on the north shore of the Gulf of St. Lawrence. Inland of the station is a 300-square-mile watershed that has never been logged and in which the trapping of beavers has been prohibited for five years. This is Naiman's field laboratory and I joined him there recently as he hiked to Lake Matamek, a two-hour walk along a boggy trail. Our brisk journey was slowed only once—by a porcupine the size of a small bear. It lumbered onto the trail just as Naiman was explaining the use of Landsat

Free-lance writer Doug Hand lives in New York City, where, as nearly as anyone can tell, the beaver has not yet made its presence felt.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In the 1800s, mountain men supplied beaver pelts to the hat trade. Alfred Jacob Miller painted trappers (right) after a Western expedition in 1837.

satellite photographs to identify beaver ponds. I imagined the satellite up above us snapping our photograph as we waited for the porcupine to waddle into the bushes. We then followed fresh moose tracks and dung all the way to the lake. Once there, we put a small aluminum boat in the water and cranked up the outboard motor.

The shoreline was granite. The steep hills were lush with dark green spruce and fir and an occasional sprinkling of paler green birch and aspen. We examined beaver lodges, looked at numerous cuttings along the shore and inspected canals that had been built and kept clear by the beavers. The canals led into swampy backwaters which were used as nursery areas by fish and feeding areas by mammals like moose. At the north end of the lake we headed upstream into the upper Matamek River. Naiman turned the boat toward the opposite shore and cruised past a large beaver lodge before beaching nearby.

I jumped out and climbed an old platform that had been erected a few feet inland to serve as a moose blind. From 15 feet up the view was not only beautiful but also instructive. Behind the lodge was a marshy pond created by beavers that covered perhaps an acre. The pond gave way to thick grass, then low willow bushes, then spruce trees. Inland of the opposite shore was a wetland with a maze of dams and canals. Behind me was a backwater full of lilies and small shrubs, connected to the river by a canal. Just about everything that I could see was a product of the beavers' work.

Naiman originally took an interest in beavers because, he explained, the more he looked at streams, "the more important the beavers became to the life of those streams. I'd say 30 to 50 percent of all the streams I looked at were directly affected by beavers." He calls the beaver a "keystone species" because its influence is so pervasive.

The beaver's preferred foods—the bark, twigs and leaves of willow, alder and birch—release large amounts of nitrogen into the pond, enriching the water downstream and attracting insects that serve as food for fish and birds. As the beavers selectively cut deciduous trees on the stream banks, the character of the forest changes. The conifers take over, altering the kind of deadfall that will enter the stream and decompose. This organic forest material strongly influences the living community in the stream.

After the beavers abandon an area, their dams eventually erode, leaving behind rich bottomlands which may become grassy clearings or new forests. In England, scientists recently concluded that beavers—not people or climatic conditions—were responsible for the prehistoric alteration of certain northern European forestlands. The grassy "beaver clearings" left behind by the animals turned into meadows which were later used by early farmers for grazing and growing cereals. The same sort of topographic succession apparently was set in motion by beavers throughout North America, and Naiman wants to develop a "life table" that shows how it works.

Such a table would quantify how many types of ponds are in a watershed at the beginning of a beaver cycle, how the cycle progresses, how the water level changes, how much silt collects and how the levels of

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Beaver dams transform streams into networks of ponds and wetlands—good for waterfowl, moose and fish.

nitrogen change with time. "You can read what some of the early naturalists wrote about the beaver," Naiman says, "and you can see that these effects were not unknown. But they weren't able to *measure* the effects. And even today, most people don't understand the important role that beavers play in structuring the character of the environment."

Hope Sawyer Buyukmihci and her husband, Cavit, understand that role pretty well. They have owned the Unexpected Wildlife Refuge in southern New Jersey for more than 20 years and one of its mottoes is, "Beavers are as much a part of our waterway as the water itself." They started by buying 85 acres, looking for a "place where we could put up birdhouses," and ended up with 350 acres, including a 40-acre pond and five bogs. "When I first saw a baby beaver," Hope says, "I knew I was looking at the greatest animal in the world. I've never changed that opinion."

At 71, Hope is a self-taught naturalist with a secretarial background who, because of all of the work associated with the refuge, doesn't have much time to "just look, which is what I love to do." Recently, however, she took a few moments to sit down on a log at a spot called Otter Dam and tell me about a beaver that once lived in the refuge.

The beaver was six weeks old when she brought it home. The parents had been killed when a farmer dynamited their lodge. Hope named the kit Chopper, and Cavit built a tunnel 60 feet long, from the living room of their house to a cove in the pond, so the beaver could come and go as it pleased. It loved to play with people and it had a taste for apples.

When Chopper was about a year old, a Girl Scout troop visited the refuge. The girls played and fussed over Chopper and Chopper played and fussed right back. A few days later, Hope received a call from the Girl Scout camp, which was three miles away, asking her to come and get her beaver. She did, but soon Chopper was back there again. After several retrievals the decision was made that, if that's where the animal wanted to live, it should stay. Not long after, Chopper was swimming in the pond at the camp and approached a fisherman's boat. Frightened, the fisherman took an oar and beat the beaver to death.

Hope had said earlier, while taking me on a tour of the refuge, that she was surprised at how little most people know about wildlife. I mentioned Naiman's research and the Wyoming project. "Ironic, isn't it?" she asked quickly. "We have to nearly exterminate beavers before we discover that they might be useful."

The beaver's pelt is no longer highly prized, though it suits this animal just fine, with or without the leaf.

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COVARRUBIAS

A caricaturist who brought the stars right down to Earth

It called for a particular talent to pin down the great notables of the 1920s and 1930s, and that was what Miguel Covarrubias had

At his drawing board, a kind of anatomist's slab in his hands, young Covarrubias casts a quizzical glance.

Miguel Covarrubias was all of 19 when he arrived in New York fresh from Mexico City in 1923, already a master caricaturist whose work had been published in the leading newspapers of his country, in Cuba and throughout South and Central America. He was not at all intimidated by successful people. His father had held high offices in the Mexican government. One of his uncles served as ambassador to France, another to England.

A teen-age frequenter of literary cafés, he had come early to the attention of Mexico's leading critic and poet, José Juan Tablada. Writing of Covarrubias afterward, Tablada describes a mischievous-looking youngster, pencil in hand, sitting by himself at a vantage point from which he could survey the room, regarding him with a "malicious eye."

In New York the young artist soon met Frank Crowninshield, editor of the remarkable magazine *Vanity Fair*, which commented on and reflected the extraordinary accomplishments of that dazzling and creative era. It was a perfect setting for Covarrubias' talent.

There was a formidable roster of celebrities to get to work on. The energy of the country was so high, its achievements so great, that nothing like it had been seen since the literary flowering of New England in the previous century. For his subjects, Covarrubias could choose from the multitude of luminaries of politics, literature, theater, music and the dance.

Covarrubias' caricatures, accomplished in watercolor and gouache with soft brushes that got to the bone, and with a pen as incisive as a scalpel, appeared in *The New Yorker* as well as *Vanity Fair*, *Life*, *Vogue* and various newspapers. The outstanding publisher Alfred A. Knopf issued his books, the Theatre Guild commissioned him to design sets.

A wide selection of his work is being shown at the Smithsonian's National Portrait Gallery—84 drawings and watercolor and gouache paintings—from November 16 through January 13.

Particularly appealing and revealing was a series of "Impossible Interviews," disjunctive meetings of people in the limelight (several appear on the following pages) accompanied by question-and-answer dialogs concocted by *Vanity Fair*'s talented writers.

In time, Covarrubias gave up his caricatures to concentrate on what had become his mature passion, the serious study of ethnology and anthropology. He made many visits to the South Pacific and wrote the highly regarded *The Island of Bali*, published in 1937. He also published works on the Indians of Mexico and Central America.

In the 1940s he spent most of his time in Mexico, teaching and writing on Indian art, archaeology and history. The caricaturist, whose work in that difficult field was in itself an extraordinary accomplishment, had become a distinguished scholar and teacher. A wing of the great archaeological museum of Mexico City is named for him.

He had started young, and when he died in 1957 he was only 52.—*Bennett Schiff*

One of a series of "Impossible Interviews" conjoins famous heartthrobs Clark Gable and Prince of Wales.

EUGENE O'NEILL (aside, in the manner of *Strange Interlude*): Will you for gossake stop breathing down my neck? JIMMY DURANTE: Gene, boy, I seen your opus maximus! Such woids! Such killings!

STALIN: Now that sounds like my five-year plan. JOHN D. ROCKEFELLER: It does? Do *you* run this plan? Can the people still take it? STALIN: Take it from me, they take it. JOHN D.: Thank heavens, dear boy.

FREUD: What do you keep hidden? JEAN HARLOW: You're asking me? FREUD: I only want to know the real you. JEAN (shaking her head sadly): I'm afraid we can never be more than just good Freuds.

CHIEF JUSTICE HUGHES (patiently): The Supreme Court is not for sale. AL CAPONE: What do *I* care for cash? Power. That's my racket. HUGHES: You talk more like the chief of a Government than a convict.

SALLY RAND: Still doing the same old intellectual striptease? MARTHA GRAHAM: I beg your pardon. I do not think we have anything in common. SALLY: Forget it, kid, we're in the same racket, ain't we?

SEN. SMITH W. BROOKHART: Hollywood is a den of debauchery! MARLENE DIETRICH: We don't have any time to look for sin. BROOKHART: Now would you mind showing me about this place?

HUEY LONG: I'm the Mussolini of Baton Rouge. I reckon you're the Mussolini of Rome, Italy. MUSSOLINI: I am *Il Duce*! GOVERNOR LONG: You said something, Big Boy, but I don't know what.

NOEL COWARD: All you need is a little polish. You must move in the best triangles. WILL ROGERS: I wisht I'd 'a' said that. Do you suppose if I spruced up an' wore dinner clothes I might be took for a wit?

Ernest Hemingway's macho public image was bitingly interpreted.

Manners arbiter Emily Post relaxes at home with the *Police Gazette*.

Paul Whiteman is a masterpiece of condensed exaggeration.

Leaders at imaginary meeting of the United Nations. Front row, from the left: King George, Greece; Duchess Charlotte, Luxembourg; Mackenzie King, Canada; Chiang Kai-shek; FDR; Churchill; Stalin; Wilhelmina, Netherlands; Tiburcio Andino, Honduras. Behind, from the left: King Haakon, Norway; King Peter, Yugoslavia; John Curtin, Australia; Peter Frasier, New Zealand; General Sikorski, Poland; Hubert Pierlot, Belgium; Eduard Beneš, Czechoslovakia; Jan Smuts, South Africa; Fulgencio Batista,Cuba; A. Somoza, Nicaragua; Viceroy Linlithgow, India; Elie Lescot, Haiti; R. de la Guardia, Panama; M. Troncoso de la Concha, Dominican Republic; Rafael Guardia, Costa Rica; Maximiliano Martínez, El Salvador; Jorge Ubico, Guatemala; General de Gaulle, Free French.

In 1931, as the country plunged more deeply into the heart of the Great Depression, *Vanity Fair*, which had its more serious side, took note of the gloom with Covarrubias' cover of an unyielding President Hoover.

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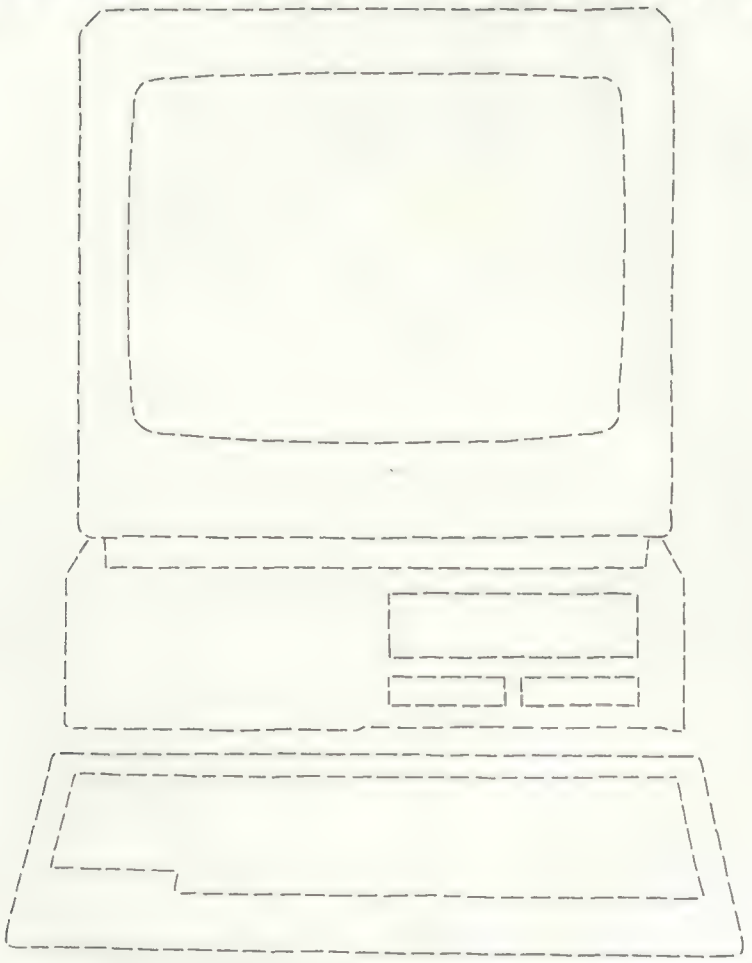

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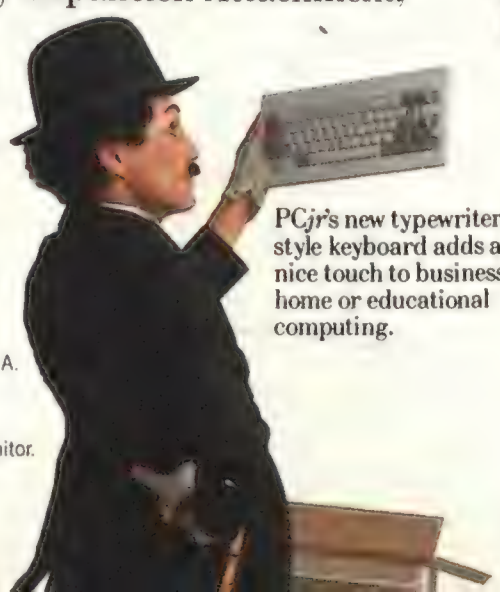

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St. Louis Art Museum

McGuffey's Eclectic Readers were first used in 1836, when many Americans went to such one-room schools.

By Anna Marie and Cullen Murphy

Onward, upward with McGuffey and those Readers

America's most famous pedagogical tools are not only still in use after 150 years, but are the subject of much heated debate

Winslow Homer painted this typically nostalgic scene and called it *The Country School* (1871).

In 1984 in Bristol, Virginia, fourth graders at the Stonewall Jackson School work on a McGuffey text.

Nestled among the close, nubby mountains of Appalachia's Mountain Empire is the small but sprawling town of Bristol (pop. 18,800), Virginia, home of hard-pressed Bristol Steel and of the 1983 state champion Bristol Bearcats high school baseball team. Bristol, which straddles the Virginia-Tennessee border, is also home to a public school system that has, literally, taken a page from the past to help pupils in the present. Since 1982, youngsters in grades one through six in the Bristol public schools have been using a 19th-century textbook series—the *McGuffey's Eclectic Readers*—to improve their spelling, sharpen their vocabulary and, as well, rekindle in them the lost art of recitation.

"I looked at the textbooks we were using," recalls former school-board chairman Gus Sorensen, "and they were pretty vapid. I figured they used the McGuffeys a hundred years ago and got something out of them. Well, our children are every bit as capable." Teachers in Bristol's public schools employ the McGuffeys as a supplement to the bland but modern "basal" readers that remain the core of the local reading curriculum. And the young children of Bristol, who once worried that the century-and-a-half-old texts would prove too difficult, now say they look forward to their McGuffey sessions as a welcome relief from tedious workbook drills.

Bristol's response to a perceived erosion of quality in the American classroom is not unique. Faced with faltering test scores, mounting indiscipline and an obvious disinclination to read on the part of many youngsters, parents and teachers across the country have increasingly sought to preserve (or restore) what they deem to have been worthwhile in "the world we have lost." One manifestation of this effort is the renewed interest in old-fashioned pedagogy—and by extension, in the McGuffey Readers.

While it is difficult to get an exact fix on the number of private and public schools nationwide that have lately adopted the McGuffeys as grade-school texts, the number is perhaps in the hundreds. Most but not all of these schools are located in small, rural communities like Canutillo, Texas, or Estes Park, Colorado. The grass-roots enthusiasm for the McGuffeys has helped to boost annual sales of the old Readers more than

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William Holmes McGuffey, about 1847, when Readers were in their third edition.

twentyfold, from roughly 10,000 volumes in 1975 to 217,000 in 1983.

In the second half of the 19th century, the McGuffeys were the most widely circulated textbooks in the United States. Approximately 122 million copies of the McGuffey Primer and the six graded Readers were sold between 1836—when William Holmes McGuffey, a dour disciplinarian and professor of moral philosophy, brought out his initial volumes—and 1920, when the texts' popularity was ebbing fast. Perhaps a billion American children during these years imbibed the McGuffeys' brief moral tales ("Hugh Idle and Mr. Toil"), their generic religious tenets ("Remember, child, remember,/ That God is in the sky"), sweet childlike rhymes ("Twinkle, twinkle, little star") and hoary guidelines for success ("If at first you don't succeed,/ Try, try again").

It is difficult today, when the multiplicity of a child's schoolbooks can easily stuff a knapsack, to appreciate the impact of the McGuffeys on American society, particularly in the South and Midwest and on the expanding frontier. These small, blue-green or buff-color volumes not only taught a youngster to read; they were also his primary source of information about history, philosophy and science. For many schoolchildren, the excerpts in the McGuffeys from works by Milton, Shakespeare, Wordsworth, Byron and others would represent their closest lifetime encounter with the world's great literature.

The stories and precepts retailed in the McGuffeys permeated American culture, high and low, helping to establish a common vernacular, a fund of heroes and values and turns of phrase upon which all Americans might draw. When Theodore Roosevelt asserted that he did not wish to be a Meddlesome Matty, the nation understood what he meant. (The Fourth Reader describes Matty as an artless young snooper who pries open her grandmother's snuffbox: "Poor eyes, and nose, and mouth, and chin/ A dismal sight presented;/And as the snuff got further in,/Sincerely she repented.") Author Stephen Crane was not a sentimentalist. But in his story "The Open Boat" (1897), a fictional account of an escape from death, the thoughts of a man adrift in a lifeboat fix on a poem from the Fifth Reader: "A Soldier of the Legion lay dying in Algiers,/ There was lack of woman's nursing, there was dearth of woman's tears. . . ."

Once (or so it is claimed in the annals of McGuffeyana), a Southern defense attorney concluded his summation by reciting Portia's plea for mercy from *The Merchant of Venice*. When the judge asked whom he was quoting, the lawyer naturally replied "Shakespeare." The prosecutor pounced: "The defense is wrong in this, as in all else in this trial. That quotation is from McGuffey's Readers." The judge ordered that the record be changed.

Henry Ford, who left school at age 15, regarded the Readers as his alma mater. As a mark of his esteem, the automobile magnate in 1932 pur-

Anna Marie Murphy is a free-lance writer; her husband, Cullen, is a senior editor at The Wilson Quarterly.

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chased the log cabin where McGuffey was born and had it moved from western Pennsylvania to his Williamsburg-style museum of Americana, Greenfield Village, in Dearborn, Michigan. Ironically, the 1857 edition of the McGuffey Readers, the one Henry Ford probably perused, was not prepared by William Holmes McGuffey at all. Indeed, McGuffey had little if anything to do with most of the volumes that, as time wore on, would bear his name. That, perhaps, is one reason why the *McGuffey's Eclectic Readers* enjoyed such longevity and appealed to such a broad range of people: with each new edition, circumspect editors and publishers revised the contents

LESSON V.

Răb Ann hăt cătch sēe
ē ch s

See Rab! See Ann!
See! Rab has the hat.
Can Ann catch Rab?

An early lesson in the First Reader shows a typical McGuffey use of word repetition and exact letter sounds.

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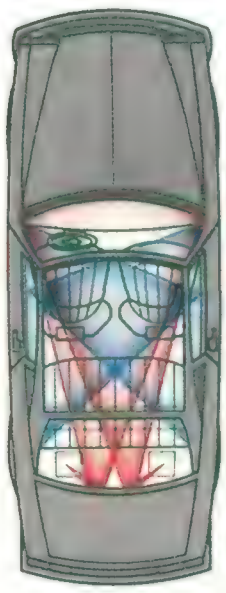

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Admirer Henry Ford moved log cabin where McGuffey was born from Pennsylvania to Dearborn, Michigan, in 1932.

to reflect a changing society. But McGuffey must be credited with, as Hollywood might put it, the "concept."

William Holmes McGuffey was born in 1800, the son of Alexander McGuffey and the former Anna Holmes. Alexander was a scrappy, hard-toiling, Scottish Covenanter who wrested a family farm from the wilderness—now in Ohio, but then a part of the Northwest Territory. His wife was by all accounts quiet and serious, ambitious for the son who took after her in so many ways, and hopeful he would enter the ministry.

But William did not graduate from Washington College in Pennsylvania until he was 26. His education was disrupted, at first by seasonal farm chores, later by the need to earn money to pay tuition. At the age of 14, in Calcutta, Ohio, he opened his first subscription school, where he taught the children of 23 families the rudiments of reading and writing. He made $80. Later, McGuffey on four occasions forsook his college career to conduct classes in Paris, Kentucky. The future "Schoolmaster of America" was by no means a fondly remembered Mr. Chips. One of his students recalled that the young teacher "rarely ever would take an excuse, but was fond of making a boy take a whipping."

It is doubtful, however, that McGuffey ever intended to teach grade school all of his life. He soon signed on as professor of ancient languages at the fledgling Miami University and took up residence in Oxford, Ohio, where he also entered the Presbyterian ministry, married the daughter of a Dayton judge, sired four children and rose, amid bitter faculty infighting (at which by all accounts he excelled), to the prestigious chair of moral philosophy. And there, also, William Holmes McGuffey, pedant, began compiling the materials that would eventually find their way into the Eclectic Readers.

McGuffey, it seems clear in retrospect, was in the right place at the right time.

In the early 1830s, nearby Cincinnati was the cultural hub of the West. Though its streets were unpaved and

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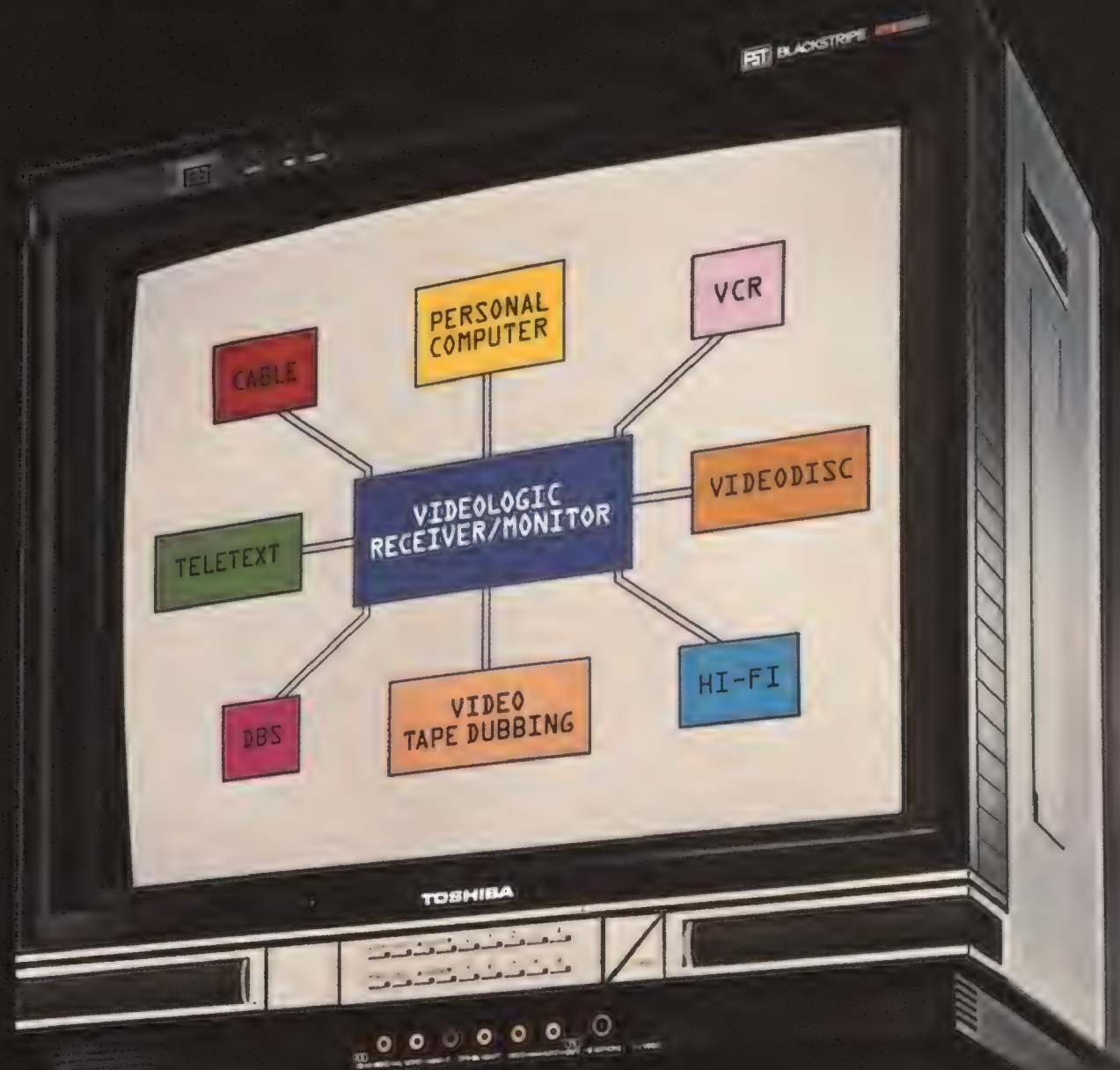

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P55

its population scarcely exceeded 24,000, the city could boast two well-stocked libraries and the 800-seat Cincinnati Theater. Already there were 50 schools in town, some of them publicly funded. By 1831, Cincinnati publishers were printing and selling 350,000 books a year.

To be sure, most books still originated in the East. But increasing numbers of educated Westerners shared the opinion of Cincinnati educator and philanthropist Daniel Drake, who encouraged his fellow citizens to "foster western genius, encourage western writers, patronize western publishers, augment the number of western readers, and create a western heart."

Meanwhile, broad social forces in the United States were in the process of creating an audience for textbooks. Immigration began to surge, with 500,000 Europeans, mostly Germans and Irish, entering the United States during the 1830s. How could these newcomers be assimilated, learn American ways? As many states dropped the property requirements for suffrage, the number of eligible voters grew rapidly. This expanding electorate ushered in the Age of Jackson and prompted worries about the prospects for insuring a responsibly educated citizenry.

Not surprisingly, then, it was in the 1830s that the "common school" movement—the drive to establish a universal system of publicly funded, free schools as a bulwark of order, cohesion and democratic values—gained momentum, not just in the East, where it had begun, but in the West. And, inevitably, in a city like Cincinnati, support for public education became bound up with the quest for a "western heart."

The Western Literary Institute, a pedagogical association to which McGuffey belonged, might discuss "The Education of Immigrants" at one meeting and "The Kind of Education Adapted to the West" at another. Western publishers were quick to capitalize upon this sectional pride.

In 1833, Cincinnati's Truman & Smith publishing company invited Catherine Beecher, a prominent local educator, to prepare a new textbook series to be marketed in the West. Busy establishing the Western Female Institute, she declined, suggesting that the publishers approach McGuffey instead. They did, and he gladly accepted, producing the first five volumes of his famous series in his spare time and at little expense. Today, launching a new basal reading series, complete with readiness books, preprimers, primers, readers, workbooks, teachers' manuals and audiovisual aids, often requires an investment of $25 million. Five years or more may elapse before a single book sees print. McGuffey, who received a scant $1,000 for his labors, submitted his First and Second Readers in 1836 within a year of signing his contract; the Primer and Third and Fourth Readers were delivered in 1837. In 1844 William's younger brother, Alexander, compiled a Rhetorical Guide, which, soon after publication, was retitled *McGuffey's Fifth Eclectic*

William's younger brother, Alexander, compiled Fifth and Sixth Readers.

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Reader. In 1857 Alexander produced the Sixth Reader.

The McGuffeys were successful from the start. Seven million copies were sold between 1836 and 1850—this in a nation of some 23 million. The series depended heavily on extracts—of stories, poems, essays and speeches drawn from other sources—an editorial procedure that led to a lawsuit (quickly settled out of court) against McGuffey and his publishers in 1838. A local educator, writing in the *Cincinnati Daily Gazette*, declared the lawsuit preposterous; McGuffey hadn't done anything that his competitors did not do, since most school texts at the time were "acquired by the free exercise of a pair of scissors."

McGuffey had wielded his shears with more skill than most, however, and his original anthologies, so very like those of competitors in some respects, held more appeal for youngsters, teachers and civic leaders alike.

The Primer and the first two Readers consisted mainly of brief, simple, children's tales and lessons. The more advanced Readers contained excerpts from orations, Scripture, English literature and works of scholarship. (John Milton's "Satan and Death at the Gate of Hell," Lord Byron's "Rome" and Daniel Webster's anti-secessionist address, "Evils of Dismemberment," were among the selections in the Fourth Reader.)

All of the McGuffeys acknowledged the natural curiosity of children (as in the Second Reader's "Mother, what is Death?") and, in good frontier fashion, encouraged industry and an independent spirit. But in line with the educational aims of the day, they chiefly emphasized adherence to Christianity, allegiance to country and consideration for others.

Do good deeds, advised the earliest McGuffeys, but do not expect a material reward. According to the Good Boy Whose Parents Are Poor, in the Second Reader, "it is God who makes some poor, and others rich . . . the

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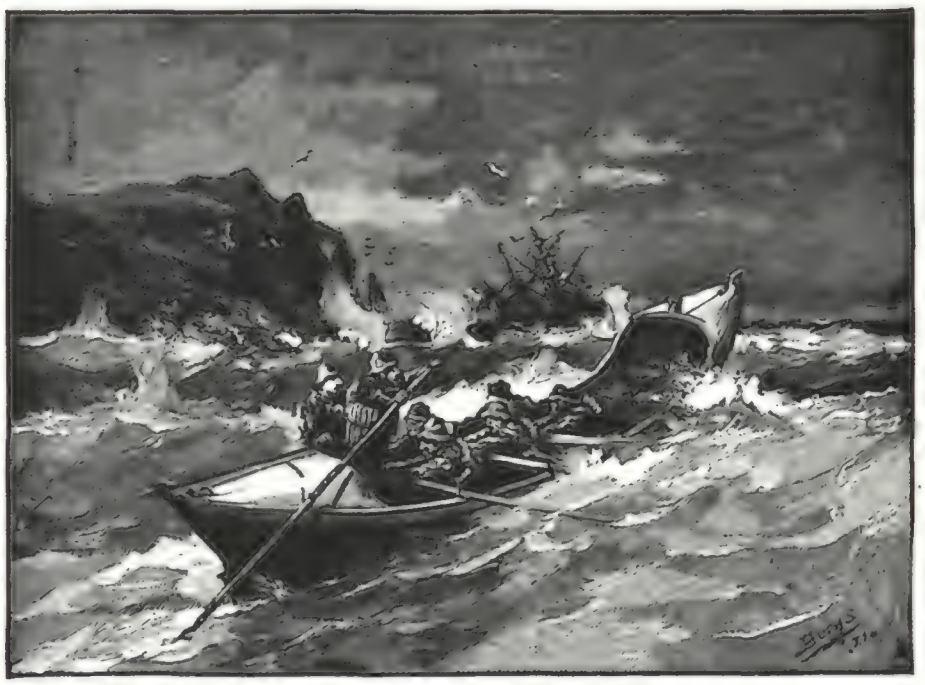

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rich have many troubles which we know nothing of, and . . . the poor, if they are but good, may be very happy." Poor people appear frequently in the Readers. Yet McGuffey generally depicted poverty not as a social or class issue but as a problem afflicting isolated individuals, to be remedied by individual acts of charity —a gift of clothing for The Poor Old Man, a shared bit of cake from The Kind Little Girl.

Similarly in tune with the times is the McGuffeys' cry, "We must educate! We must educate!" (from an essay by Lyman Beecher in one of the Readers). Unlike modern reading textbooks, which tend to ignore the

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subject, the McGuffeys depict education as something to be avidly sought after and respectfully nurtured. In the Readers, lucky children receive tomes, not toys, as gifts. Little Lucy, in the First Reader, would "rather read than play," since children who "do not know how to read cannot learn anything but what is told them."

On many issues the books reflected an effort to present a variety of contrasting viewpoints. Thus, in the Fourth Reader, the chauvinism of "Natural Ties among the Western States" was somewhat softened by a companion essay on the "Character of the Puritan Fathers of New England." Similarly, war was in some lessons portrayed as an evil, in others as a fit subject of child's play or an occasion of heroism. And William Holmes McGuffey, the stern Presbyterian minister, appreciated the entertainment value of wicked deeds.

Throughout the Readers, children lie, steal, taunt, eat too much, play hookey, drink liquor, destroy property and (offstage) use foul language. Typical of such stories is the Second Reader's "The Boys Who Did Mischief for Fun." As a prank, two brothers habitually trip up visitors in a meadow near their home—unwittingly courting tragedy when they disable a man running to fetch the doctor for their ailing father. The McGuffeys were among the first textbooks in America carefully designed to be studied seriatim, with each Reader progressively more difficult than its predecessor. They were also among the earliest schoolbooks for beginning readers to use word repetition in the text ("Is the cat on the mat? The cat is on the mat.") as a learning aid, a practice now universally embraced. Instead of offering dull lists of 20 to 100 new words per page for memorization, as Colonial primers had done, McGuffey's series introduced vocabulary more gradually and in the lively context of real literature. Recognizing the often limited experience of a typical country schoolmaster, McGuffey included lists of questions for teachers to ask their students.

That is not to say that the original McGuffeys much resembled modern readers. They were tougher. At the Primer level they present short but complete and dramatic stories (p. 194). We analyzed a first edition of the Second Reader using the readability formula developed in 1968 by Rutgers University's Edward Fry and found it to be at the seventh-grade level. To be sure, a student's "grade

Frontispiece of the First Reader features a little girl diligently reading. McGuffeys often moralized about value of books.

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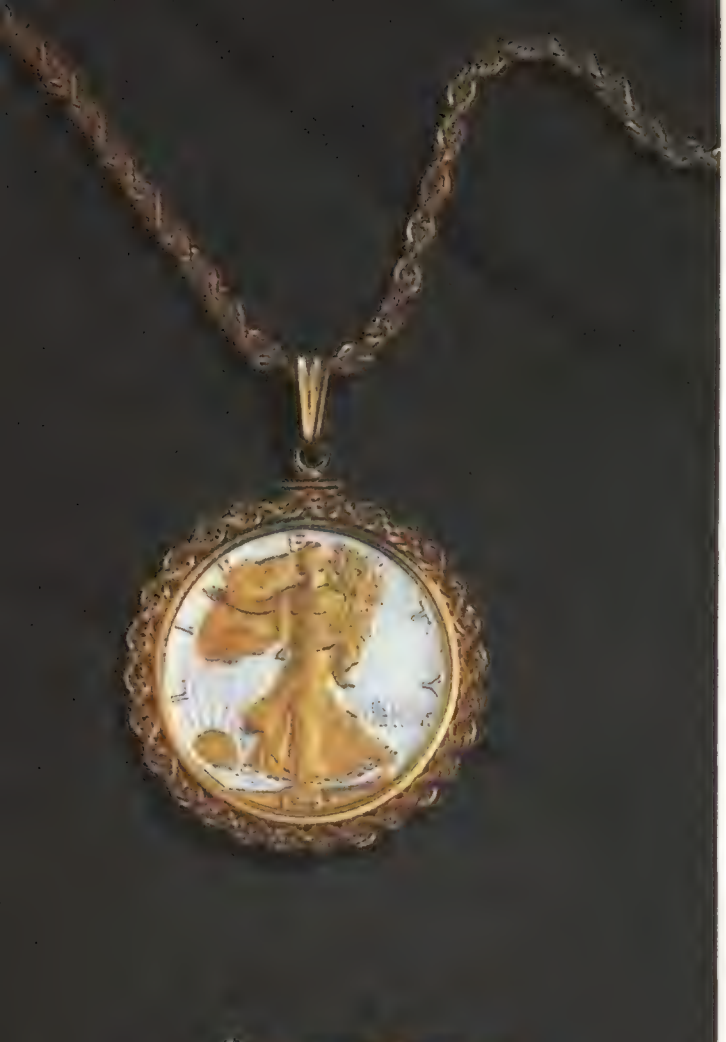

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level" revealed far less about his age or maturity during the first half of the 19th century than it does during the second half of the 20th. With time off for harvest and farm chores, a pupil might get no further than the Second Reader before completing his education at, say, age 17. (This probably explains why McGuffey included in his First Reader an essay entitled "Don't Take Strong Drink.") And, at the higher levels, the material anthologized by McGuffey was in no sense "easy." Some selections in the Fourth Reader and beyond, notably those on moral philosophy and metaphysics, would challenge a well-rested 20th-century adult.

Perhaps that is because moral philosophy and metaphysics, along with religious subjects generally, are no longer part of the average American's literary diet. The McGuffeys were old-fashioned in this respect, even compared with competing readers from the 1830s. As the series underwent overhauls in 1841, 1844, 1857, 1866 and 1879, the publishers gradually muted its overt religious messages. But the publishers never strayed from McGuffey's original emphasis on moral suasion. This aspect of the series draws certain parents and educators to the McGuffeys today.

In Bristol, Virginia, one chill, gray winter morning, at Van Pelt Elementary School—a modern structure whose vast, brightly colored interior was designed to accommodate the "open classroom" techniques popularized during the 1970s—we watched as the fifth graders in Mrs. Carole Dellinger's class completed a day's McGuffey lesson. They had reviewed the new vocabulary and were now fielding questions about a story entitled "True Manliness." In Part I of the five-page tale, Tom the bully taunts Fred ("a bright, active boy twelve years old") for helping his sick mother with the housework; in Part II, Fred rescues Tom's sister Katy from a burning house while Tom, trembling, stands helplessly by.

Gently, Mrs. Dellinger drew her charges to the story's point: "Now who was the bigger man, Tom or Fred?" (Children, softly: "Fred.") "When we think of a man, we sometimes get this image of a macho man, don't we? But we know that when it comes down to the basics, it is a person's character that counts. Now what qualities should we look for—and when we say 'man' we're really talking about men *and* women—what should we search for in a person?"

Discussions such as this are typical when the McGuffeys are brought out in Bristol. Ann Rector, whose son, Jamey, was a student of Mrs. Dellinger, appreciates the moral reinforcement the local schools are providing. "They're doing something to complement what I'm trying to teach at home. Our children get enough fantasy from television, movies and their other books. They need real-life situations to identify with." Bristol teachers agree that there is more "real life" in the McGuffeys than in modern readers. The stories in those books, complains one primary teacher, "are just children interacting with other children. Adults are excluded." The McGuffeys, another teacher says, teach children "kindness to the aged." They set an example of patriotism "that is not in the books today."

But introducing the Readers into Bristol's schools has not been all smooth skating. A few parents have voiced concern that the books might be too antiquated. Others are worried about sexism. And Bristol's black children will see no faces like their own among the illustrations. Evelyn Murray, until recently director of programs for gifted children in Bristol schools, has considered all of these objections—and overruled them.

Regarding the absence of blacks, she tells teachers: "Just say it's history. We can't throw it away. We can't take it out. But aren't we glad we've come a long way." On the issue of women's liberation, Murray argues, the Readers, despite ample stereotyp-

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Almost from the beginning, the Readers stressed syllabification and made use of diacritical marks as aids to pronunciation.

ing by sex, make a broad point about girls and boys that is worth heeding. In these books, young heroes and heroines alike apply themselves in school, succeed and enjoy it. Similarly, ragged lads and lasses alike willingly work outside the home—selling matches, shoveling snow—to help support their families.

Notes Murray: "Basal readers today say to children, 'You play. Only adults work.' The McGuffeys are *not* old-fashioned! What is old-fashioned about truthfulness, doing a task and doing it well, persevering? To me, they're modern."

As is the case in Bristol, other public school systems that have adopted the McGuffeys employ the texts as an adjunct to a standard reading program, not as the primary reading text. At Estes Park Elementary School, on the edge of Rocky Mountain National Park in north-central Colorado, Larry Sharman uses the Third Reader to teach paragraphing and vocabulary to his fourth and fifth graders. Tift County, Georgia, school officials purchased the McGuffeys during the mid-1970s for use in federal Title I remedial-reading programs. According to Merlyn Harris, Director of Elementary Education, the books were chosen partly because of the relative scarcity of art: "A child who is not succeeding at reading does not need a lot of distractions."

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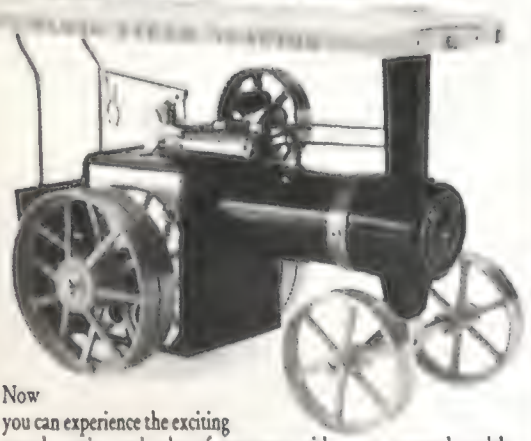

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common in modern readers—impedes development of reading skills in beginning students.

Among private, church-sponsored schools, the McGuffeys are used more extensively. Six small Amish schools (with 25 to 40 pupils each) near Homerville, Ohio, for instance, have since 1954 used the Primer and five of the Readers as the principal reading textbooks for grades one through six. At Grace Baptist Schools in Redding, California, the McGuffeys have been employed since the system's founding 18 years ago, first as the principal texts, more recently as supplements. On average, elementary students there rank a good year and a half ahead of the norm in reading as measured by the Stanford Achievement Test.

"I think one reason a lot of schools do not like the McGuffeys," observes Grace Baptist principal Stephen L. Roberts, "is that they are difficult. The vocabulary is kind of heavy. We feel the McGuffeys have helped kids—not only in character building, but because they are challenging reading."

Roberts' opinion is echoed by others who teach with the McGuffeys today. Educators who happen to favor the Readers for the moral message they convey inevitably add that they chose the McGuffeys for another reason: they work. Especially in the hands of good teachers, the McGuffeys build strong reading skills.

The very fact that they are so difficult is one reason why. A number of arguments have been advanced over the years in support of "easier" textbooks. One of them is that children need to "taste success" before they can get excited about learning. There is, of course, some truth to this. But how much easy success is needed? According to the National Commission on Excellence in Education, not as much as textbooks today generally grant. The Commission's 1983 report cites a recent study showing that a majority of students "were able to master 80 percent of the material in some of their subject-matter texts be-

Booster Henry Ford posed with a Reader in McGuffey's natal cabin in 1940. Ford reprinted Readers, gave away tens of thousands of them.

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fore they had even opened the books.

The fact is, as William Holmes McGuffey seemed to recognize, children, like everybody else, thrive on challenge. A look at how American youngsters have scored on the Scholastic Aptitude Test over time seems to bear this out. In 1977, after 14 continuous years of falling SAT scores, Harvard researcher Jeanne Chall and two colleagues compared the relative decline in difficulty of various readers in use from the 1930s through the 1960s and student performance on college board exams. "There seems to be rather compelling evidence," they concluded, "that a positive relationship exists between the level of challenge of textbooks used by pupils and the scores they achieve on SAT verbal tests."

The McGuffeys do supply a needed challenge. They also expose young students to aspects of phonics. And early phonics is something that, up through the 1950s and early '60s, many American reading books (and pedagogs) neglected in pursuing the chimera of "whole word" recognition, to the detriment of spelling and "sounding out" skills.

William Holmes McGuffey had a deep concern for enunciation and accent. Distressed at the lazy backwoods diction—born of immigration, isolation and ignorance—that he heard all around him, he incorporated into his Readers stern directives against, for example, "fur-git for for-get" or "narrer for nar-row." To McGuffey, reading and oration were inexorably bound together; his was an age when, for entertainment, books were routinely read aloud.

Accent and elocution—though distinct species, they share common genes with phonics. In the Primer and First and Second Readers, McGuffey made sure to break up new words into syllables: vi-o-lent, fright-ful-ly, sis-ter. Like a road atlas, this helped his charges negotiate terrain in piecemeal portions. McGuffey also made ample use of the orator's stand-

VII. LAZY NED.

1. "'T is royal fun," cried lazy Ned,
"To coast upon my fine, new sled,
And beat the other boys;
But then, I can not bear to climb
The tiresome hill, for every time
It more and more annoys."

2. So, while his schoolmates glided by,
And gladly tugged uphill, to try
Another merry race,
Too indolent to share their plays,
Ned was compelled to stand and gaze,
While shivering in his place.

3. Thus, he would never take the pains
To seek the prize that labor gains,
Until the time had passed;
For, all his life, he dreaded still
The silly bugbear of *uphill*,
And died a dunce at last.

Story of "Lazy Ned" characteristically combines poetry and preachment.

bys: rhyme, alliteration and assonance. Modern phonics texts rely on the same devices.

In later McGuffeys (the edition still available today), the editors brought up to date the diacritical marks that cue young readers to nuances of sound which they soon learned by repetition. An ă, as in cat, is not the same as an ā, as in ate. Once the variations were mastered, a child possessed the building blocks to work his way through almost any new word he encountered. Crucial then as now was the active intervention of a teacher (or parent) willing to make the lessons work.

The belated rerecognition among educators, during the 1970s, of the importance of an early familiarity with phonics has prompted the appearance of modern phonics texts thought to be far superior to what the McGuffeys provide. In theory, educators and cognitive psychologists simply know much more today about how to get this essential information across. But the McGuffeys still seem to hold a competitive edge. They hold it where they always did—in supplying texts so lively, instructive and en-

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tertaining that children want to make an effort to become proficient readers. In this respect, the McGuffeys have advantages over modern textbooks for reasons that textbook publishers these days have sometimes been powerless to do much about.

For decades, the textbook industry has had to be sensitive to what Frances FitzGerald, in *America Revised*, has called the "basso continuo" of the political right, who charge school texts with insufficient patriotism and downright Godlessness.

Since the 1960s, publishers have increasingly been forced to heed a cacophony of constituencies on the left as well. The New York-based Council for Interracial Books for Children, for example, has established criteria for gauging unacceptable levels of sexism, ageism, racism, elitism, conformism, escapism and materialism in children's books. Christians, non-Christians, blue-collar workers, intellectuals (never call them "bookworms," publishers are admonished), fat people, short people, Asians, Mexicans, housewives and devotees of sundry "alternative life-styles" all have their champions among the multitude of activist organizations (and state and local boards) that routinely scrutinize textbooks for offensive passages. With market competition intense and more than $287 million at stake every year, the inevitable result has been a redoubtable blandness in modern readers. Absent, especially in books for the youngest schoolchildren, have been tough topics relevant to children's daily lives (and certainly of interest to youngsters) but likely to stir controversy: topics like discipline, hardship, relations among siblings, growing up, death. Ironically, Bruno Bettelheim and Karen Zelan conclude, in *On Learning to Read*, "by trying to please everybody, these readers end up pleasing nobody"—least of all parents who would like to see their children learn to read proficiently.

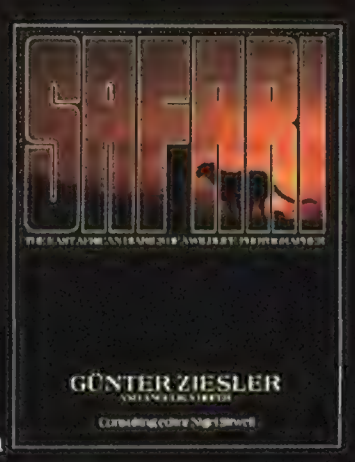
Of course, as the decades passed, the McGuffeys, too, underwent revisions to accommodate shifting attitudes. The evolution of the series was overseen by a succession of deft editors and publishers, armed with advice from local teachers. Thus, in later McGuffeys, God became a more provident and benevolent Being, less "judgmental." Heaven's favorable view of good works was now more often manifested in Earthly rewards, in the form of money, food, books, public esteem. The topic of "play" more frequently became a worthy subject in itself. Humor gained, though never the upper hand.

McGuffey himself had no part in the process. Content to let others bother with the "time, labor, worry and expense" of publishing schoolbooks, and willing to forego "all the pecuniary profits," he relinquished all rights to the Readers (though it is said that he received a barrel of hams every Christmas from a guilt-ridden publisher). After spending 19 years as an educator in Ohio, including four years as president of Ohio University in Athens, McGuffey eventually repaired to the University of Virginia, where the last 28 years of his life passed quietly. He died in 1873, of "congestion of the brain." Total sales of the McGuffeys stood then at about 50 million volumes. The last major revision of the series occurred in 1879.

By this time, the Readers already faced intense competition. The classroom curriculum was expanding. As history books, geographies and other subject textbooks steadily became more available, the purpose of reading texts became increasingly narrow, increasingly the domain of specialists with theories to test. The United States, moreover, was poised to enter the 20th century. It became fashionable to "exalt the new." Soon, the very longevity of the McGuffeys made the series suspect in the eyes of reform-minded educators.

Popular affection for the old Readers persisted, however. In 1918, the

Respond



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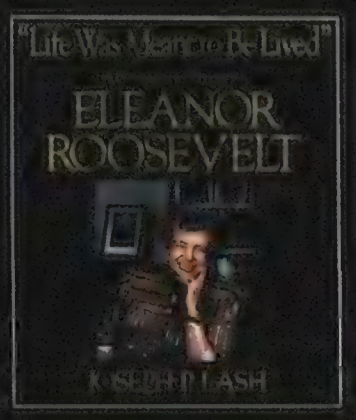

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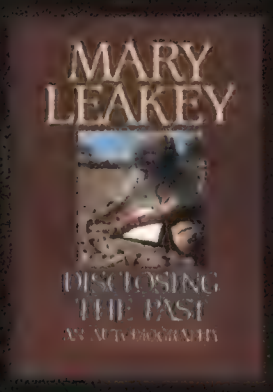

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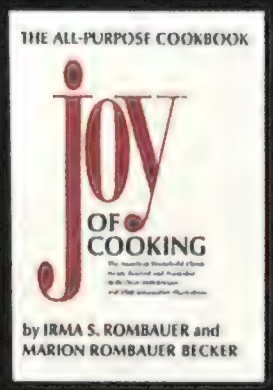

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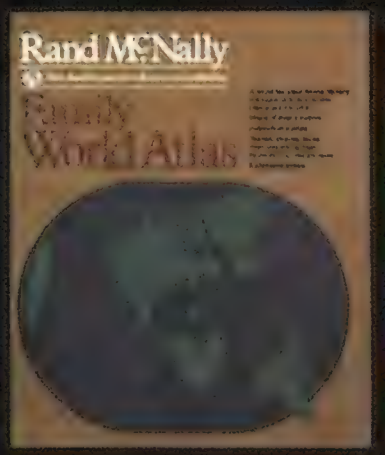

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McGuffey Fifth Reader Club was established in Columbus, Ohio, its 35 charter members pledging to "revive the spirit of other years." Within two decades, that organization was but one outpost in a nationwide federation, with a combined membership of 100,000. In 1932, 5,000 people turned out in Akron, Ohio, for a spelling bee sponsored by the Federation of McGuffey Societies. Henry Ford and Branch Rickey were proud, active members.

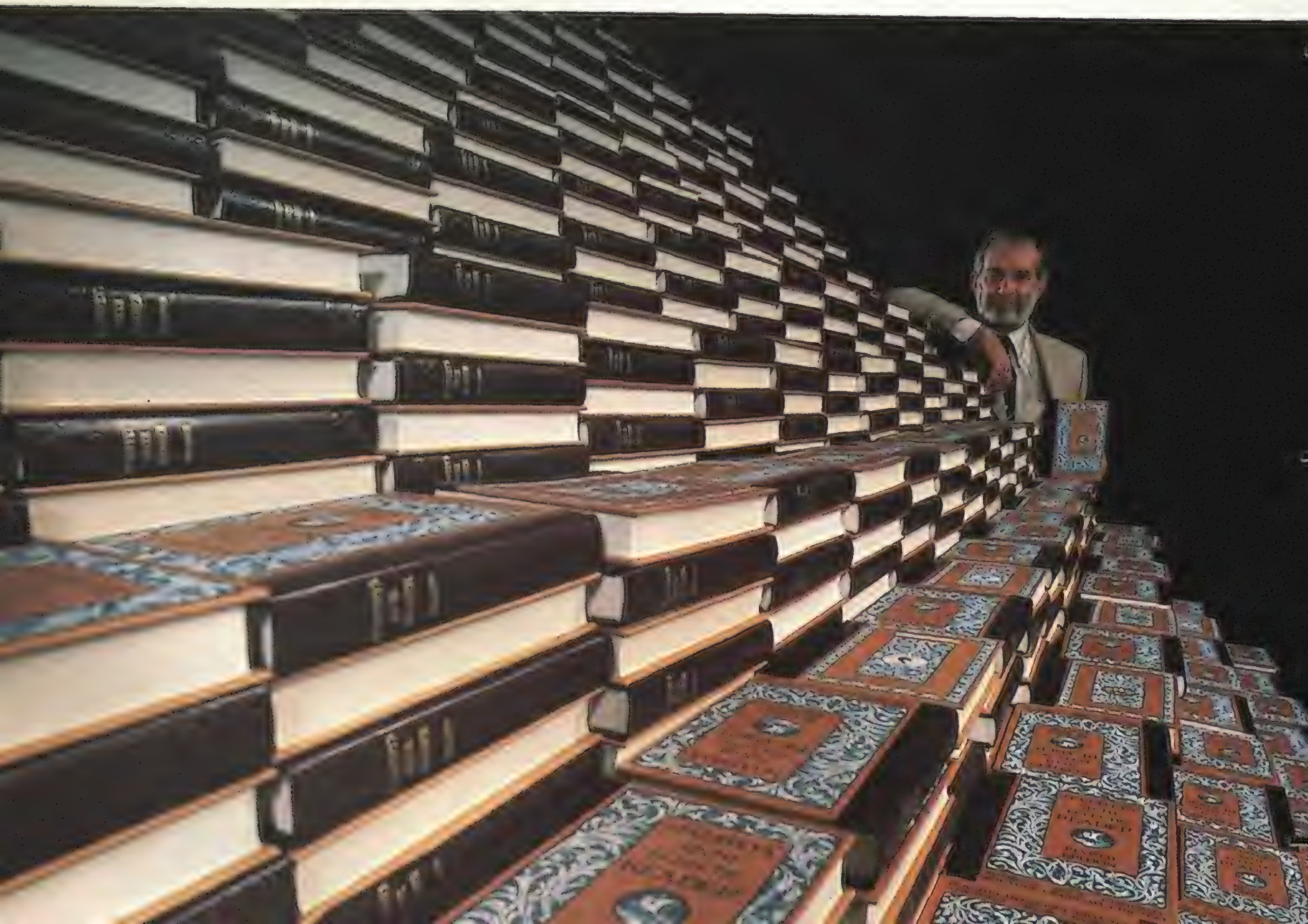
The Federation survives still, but most members are elderly, and many are former teachers. While they concede that William Holmes McGuffey was "not a very nice man," they retain nevertheless a faith in education and would be happy to see the McGuffeys more widely taught in schools today—in order to strengthen reading skills and cultivate a sense of history.

Not even the McGuffeys' most ardent loyalists, it seems, expect the return of the series to its place of national preeminence. Nevertheless, there appears to be a trend among laymen and educators alike toward many of the values and qualities embodied in the Readers. When the Gallup Poll questioned parents of public school students, four out of five favored "instruction in the schools that would deal with morals and behavior." As to rigor, textbooks in reading *are* getting tougher. In 1962, for example, the first reader in the popular Scott Foresman series contained only 1.9 new words per every hundred words of running text; the 1978 first-year course by the same publisher introduces new words at a rate of 9.8 per hundred—too much, some specialists say, though it is well behind the pace of the 1879 McGuffey Primer (18.4 per hundred).

Reading scores are beginning to improve. If this keeps up, Americans are likely to look beyond the "how to" and toward the "what" of reading, and to ask of readers: Do these books express our society, pass on its virtues, contain stories of substance and literary worth?

As educators, editors, publishers, parents and politicians take a hand in rebuilding our children's reading texts, they could do worse than to emulate the spirit of compromise that marked the McGuffeys from the start. It is a colorful world; bad things happen; and guidance to the young on right behavior is needed. The editors of the McGuffeys, like Old Guff himself, bore all of this in mind.

Bob Baird, an executive of Van Nostrand Reinhold, the current McGuffey publisher, is enjoying the old Readers' renaissance.



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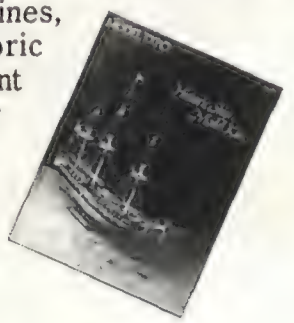

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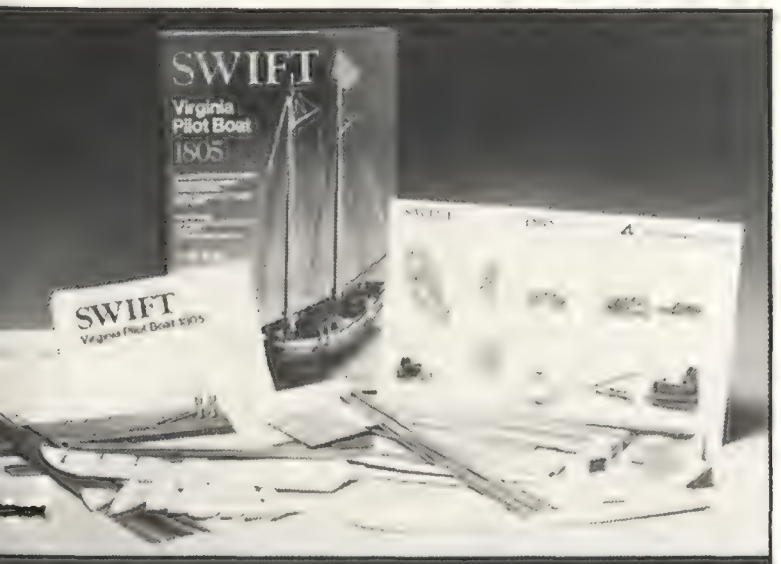

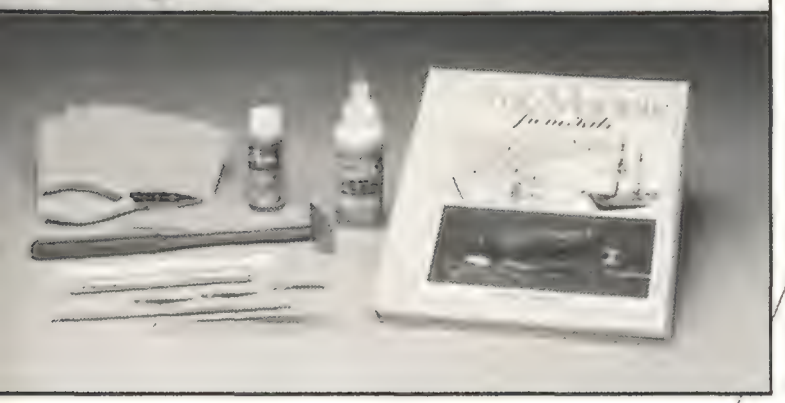

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Points of origin

Centuries before gunfighters roamed the Old West, knights wore spurs and posses rode after outlaw gangs

The scene has a haunting familiarity. In a desolate landscape, a band of 50 men, mounted and armed to the teeth, awaits a lonesome traveler, a treasury agent. Closer, closer the rider comes, and as he clears the last hillock and descends into a little draw, the ambush is on. . . .

The locale here could well be Tombstone, Arizona, or Dodge City, Kansas—the American Wild West of the 19th century. But it's not. This action was played out in Leicestershire, England, a few miles from the sleepy village of Melton Mowbray. The date was January 19, 1326. And the gang was that of the notorious Folville brothers—Eustace, Robert and Walter—who were about to dispatch an unscrupulous tax collector, a baron of the exchequer named Roger Bellers.

Still, the similarity to the Wild West is striking. In both periods, men (gunfighters and knights) rode about on horses, drank booze, played cards—and faced the threat of death at every turn. In 1350 and 1850, many facets of life were similar.

Actually, this observation is not new. Back in 1965, UCLA historian Lynn White jr. wrote an essay in the medieval journal *Speculum* pointing out that much of the technology of the American West was derived directly from the Middle Ages. After noting that most of the ideas and artifacts that helped settle the West were brought over by European lower classes, White went on to suggest that even today we are closer to the Middle Ages than Europe is.

This was news to me, but it made sense. White had taken a number of disparate facts about the West and fashioned them into a challenging thesis. Take the log cabin. This was a typical medieval Scandinavian construction, first brought to Delaware by the Swedes. Similarly, the Conestoga wagon was originally the *longa caretta* of the 12th century. The stage coach was first depicted in an Anglo-Saxon manuscript of the early 11th century.

In 1931, the Great Plains chronicler Walter Prescott Webb showed how three inventions were critical to opening up our Western frontier: the revolver, barbed wire and the windmill. White agreed with this, but went on to demonstrate that all three were dependent on technology essentially developed in Europe between 1100 and 1500. Or consider spurs. Modern Swedish archaeology shows that simple, pointed spurs were supplanted first by spurs with a loose ball or small plate (11th century) and then by rowel spurs, with the disk first horizontal, then vertical (13th century). Apparently, the Western buckaroo and the wandering knight both "jingled" as they rode.

The saloon of the Old West traditionally served whiskey, a 14th-century invention. Alcohol had been distilled from a wine base to make brandy in 12th-century Salerno, and from a grain base as *usquebaugh* (whiskey) in Celtic lands. Scotch-Irish immigrants brought the technique to Pennsylvania in the 18th century.

The cowboy's staple pastime, the card game, was also a late-medieval invention. Introduced in Italy in the early 15th century, card playing quickly spread to France, Spain and England.

In fact, when you think of the two ages, it is not too fanciful to see the Western gunfighter as a knight in mufti. The two had a lot in common. Each earned his livelihood on horseback in a violent society, the sword of one being the six-shooter of the other. Each had a personal code of honor quite apart from the law. At times, each was a symbol of order and of protection; at other times, of carousing and anarchy. And while knighthood was often a lordly estate, in some periods the knight was simply a mercenary of no special status.

In the American West, there was no greater crime than stealing a man's horse. The penalty was death and it was usually immediate. Theft of cattle received a much lighter punishment because cattle

A French woodcut made in the late Middle Ages shows a knight in full dress. Western gunmen, too, frequently rode about dressed to kill.

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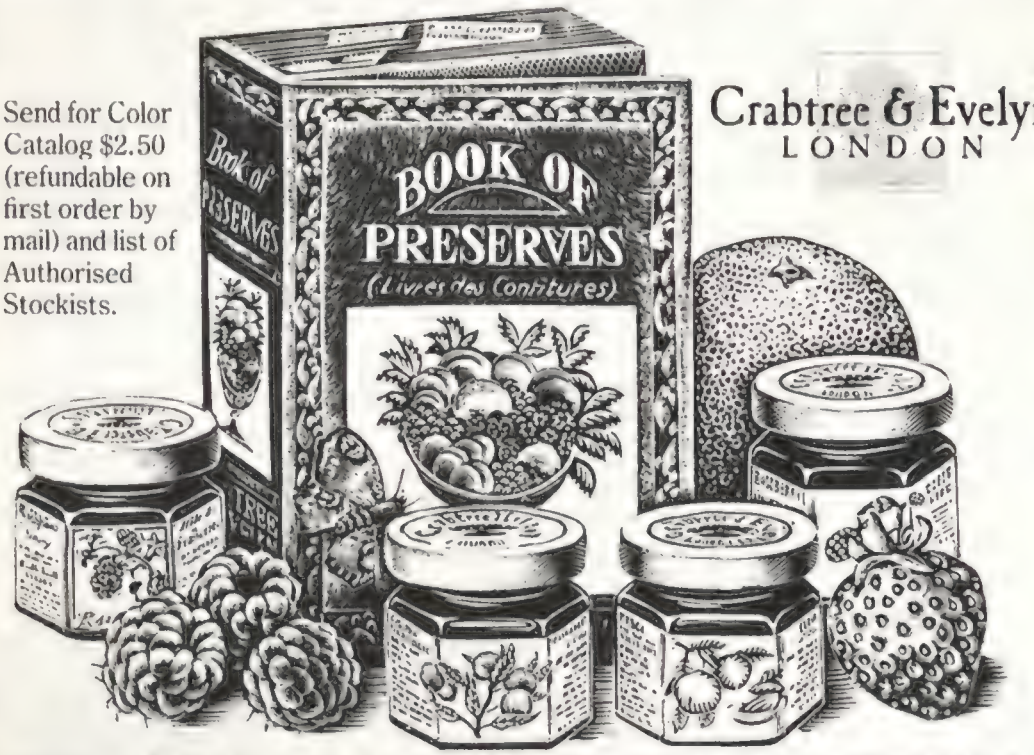

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were viewed simply as private property, whereas a man's horse was life itself. The lawlessness of the West arose partly because contemporary laws had so little application. As Webb wrote: "Each man had to make his own law because there was no other to make it. He had to defend himself and protect his rights by his force of personality, courage, and skill at arms. All men went armed and moved over vast areas among other armed men. The six-shooter was the final arbiter, a court of last resort, and an executioner."

We like to think of the frontier in 19th-century America as a uniquely new challenge to mankind. But in medieval Spain and Portugal, another frontier played a crucial role in the life of the people. There, in the 12th century, the no-man's land was a huge zone between the Christian north and the Moorish-dominated south of the peninsula. Curiously, this was a place somewhat akin to the Americas, where the contest was not with the Moors but with the Indians. The landscape appeared the same: high plains and brush vegetation with grass in season. Water was scarce. It was, in fact, ideally suited to sheep and cattle ranching.

With the reconquest of Spain vast new areas were opened up to ranching, the first time that beef and hide raising had been tried on a large scale in Europe. The 12th-century experiment that began on the northern *meseta* flourished on the Andalusian plain, reaching its height in the 16th century. This, according to C. J. Bishko of the University of Virginia, gave rise to the greatest cattle industry in history, ranging from Argentina to Canada.

For Andalusia, Bishko writes, saw the very invention of cattle ranching, with its long overland drives to new pasturage, round-ups for branding in the spring, slaughter in the fall. Here, too, were the origins of the traditional cowpuncher's skills—roping, riding, bulldogging.

There was another side, though. In medieval Spain, the vaqueros (cowhands) were usually accompanied by pastoral military escorts who slept dressed and armed, ready to mount and ride after the raiding Moors. Eventually, as the cattle industry prospered, the Moors were not the only problem. Instead, a familiar litany of complaints began to appear: disputes over grazing rights, ownership of mountain passes, brand changing, crop damage, killing another's

stock. Cattlemen and plainsmen began to fight among themselves, and special courts and laws were established to handle their disputes.

It remains only for the badlands of medieval England to donate the single remaining element to this portrait of the Old West. That is the sheriff, or shire-reeve, a sort of tax official and justice of the peace, originally appointed by the king as his personal representative in the county (shire). Although the sheriff's title has been traced back to the reign of Ethelred the Unready (978-1016), he was most powerful in the 12th century. After that, he became increasingly a minor official, except in the American West.

It was the medieval sheriff who collected all revenues due the Crown, presided at the shire courts, proclaimed all royal statutes and acted as game warden. The sheriff also called out the posse comitatus, a force of men from the county whose duty was to round up and detain evildoers. Unfortunately, one of the problems with the medieval sheriff was that he was prey to corruption, often falling under the control of a single influential family. Although no historical Robin Hood has been found, the Sheriff of Nottingham in folk ballads is a stock figure of grasping medieval officialdom.

To be sure, the sheriff's job was a difficult one, for this was a great age of outlaw gangs. There were, for example, the Coterels of the Midlands, who had at least 20 recruits at one point, including a university teacher and a counterfeiter, and were charged with murders, robberies and acts of wanton destruction.

The Coterels occasionally joined forces with the Folvilles, the gang previously mentioned. Oddly, their father was a knight, one brother a priest, another a keeper of the peace. On January 14, 1332, they captured Sir Richard Willoughby, an important justice of the king's bench. A ransom of 1,300 marks was paid to release him. Willoughby, like Roger Bellers before him, was said to be a scoundrel who "sold" the laws "like cows."

The world had to wait until the 19th century, on our Western frontier, to see these conditions return. And then it was not the Coterels or Folvilles who would take matters into their own hands, but people with names like James, Dalton and Younger.

Michael Olmert

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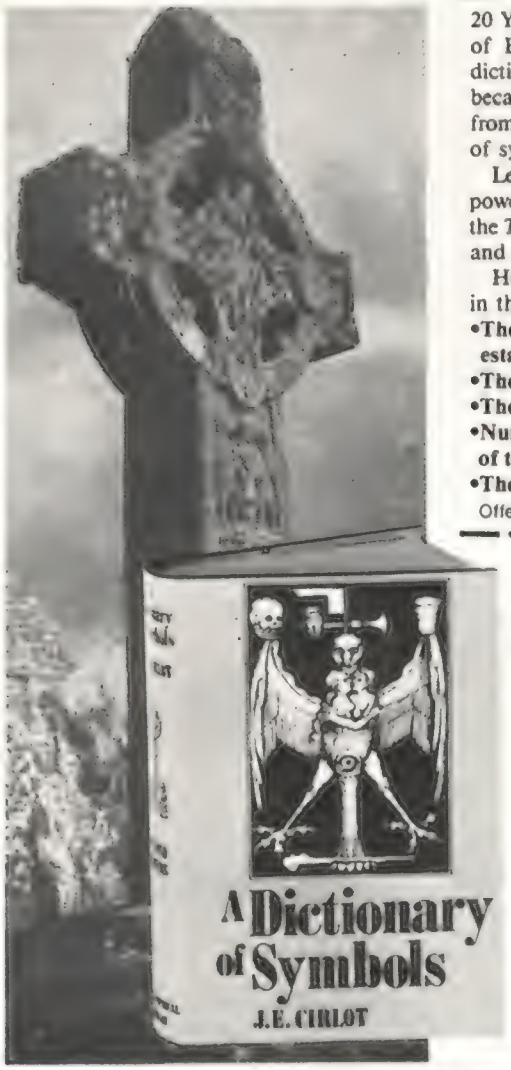

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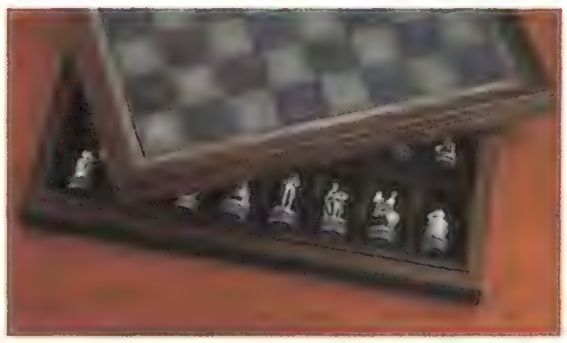

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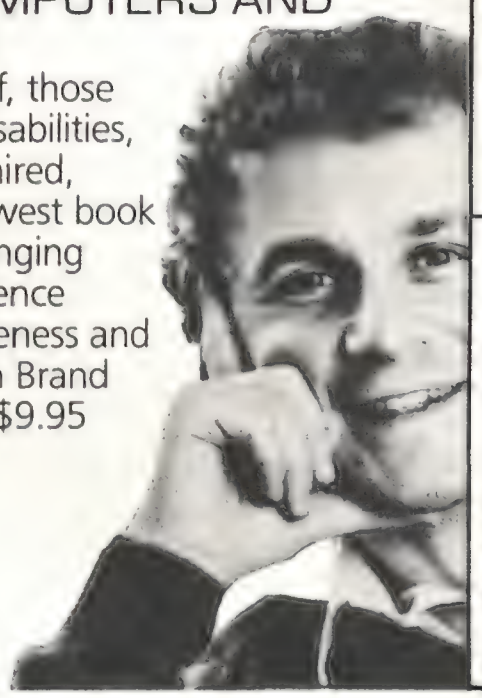

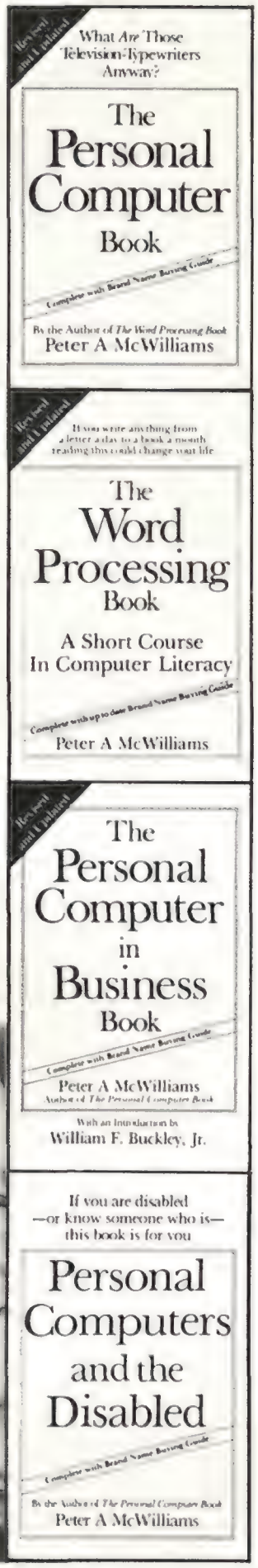
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Book reviews

Thomas More: A Biography
Richard Marius
Knopf, $22.95

Sir Thomas More remains one of the most controversial—and interesting—figures in English history. About his piety, or his great wit and learning, there has never been much disagreement; but to at least some modern minds the sweet reasonableness of his friend Erasmus seems more attractive than More's partisan defense of traditional Catholicism, which led to his execution by Henry VIII in 1535.

It is precisely this ambiguity that makes More a fascinating character. He was born at a moment of painful intellectual transition when the assumptions of the Middle Ages were crumbling on all sides. Though More went to the scaffold because he was unwilling to renounce the tenets of medieval Christianity, his sympathetic interest in the new humanism pointed toward the future as well. Despite his beatification by Pope Leo XIII in 1886 and canonization by Pius XI in 1935, More has never been the exclusive property of Roman Catholics: he was, as the play and movie suggested, "a man for all seasons"—and for all parties.

We know more about More's private life than that of any other Englishman in the 16th century, thanks primarily to an inspiring memoir by his son-in-law William Roper. Roper, however, set an unfortunate precedent by treating More as a saintly hero, and in the following 400 years even those biographers who rejected More's theological views have transformed him into a defender of English liberties against royal tyranny. Now, 50 years after the last life of More was

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written by R. W. Chambers, Richard Marius has attempted to set the record straight in a biography that emphasizes More's frailties and interprets his career in the context of intellectual, social and religious currents of his day.

There is, of course, a darker side to More's mind, and it is surprising that no biographer has tried to come to terms with it before. His hair shirt and self-flagellation are likely to disturb many nowadays. His barely suppressed sensuality, which Marius regards as fundamental to More's psychological development, was constantly at war with his religious impulses. In public controversies he could be abusive, intemperate, unfair, sometimes scatological.

Even when we turn to the one book by More that readers in this century are most likely to have encountered, his *Utopia* (1516; first English translation, 1551), our response is probably ambivalent. The classless, communist society that More imagined was certainly a daring vision in Tudor England, and the book has been widely admired by other writers of egalitarian sympathies, including William Morris, whose own *News from Nowhere* (1891) owes something to More but predicts an infinitely less-regimented future. Yet it might also be argued that *Utopia* is likewise the progenitor of anti-utopian novels such as *Nineteen Eighty-Four* and *Brave New World*, for, like them, More's

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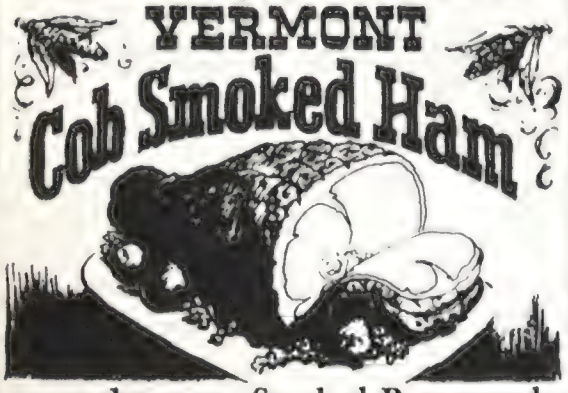

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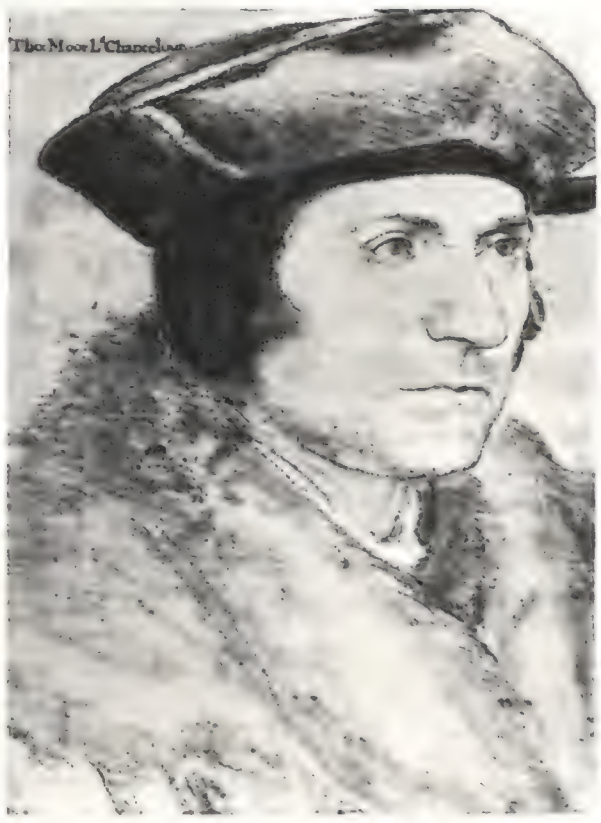

Thomas More, the "man for all seasons," also may be seen as a man like other men.

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book envisions a social structure that is centralized, all-powerful and all-pervasive in its control of the individual.

There is a connection, Marius argues, between the oppressive central authority of *Utopia* and More's preoccupation with the personal need for moral self-control; in both instances More takes for granted the inherent sinfulness of human beings (an idea that Marius clearly finds distasteful), which is likely to break out into self-destructive behavior at any moment. Only by social pressure and stringent laws can it be suppressed.

More's ideas, examined closely, sometimes have alarming implications. But despite our misgivings, we find it difficult, in the end, to resist the attraction of his complex personality—troubled, divided, at the same time learned, wise and morally powerful. Marius has risen to the occasion by writing a biography (handsomely printed and illustrated) that is informed and eloqent and also conveys a sense of More's mysterious hold on our imaginations.

William S. Peterson
Professor of English
University of Maryland

To a Distant Island
James McConkey
Dutton, $13.95

Vladimir Nabokov, speaking of Anton Chekhov's twilit fictional world, once described it as "dove-grey." The same evocative adjective might be used of *To a Distant Island*, James McConkey's meditation on Chekhov's 6,500-mile journey to Sakhalin, a prison island off the far coast of Siberia, and familiar now as near the place where KAL Flight 007 was shot down. Notwithstanding a measured, exceptionally serene prose, this is a book about the author's recovery from depression, anxiety and loss of purpose.

Back in 1971 McConkey, a professor of English at Cornell University, left for a year's sabbatical in Florence, Italy, taking with him "a paralysis of will, the affliction of a miserable and self-centered despair," and a paperback collection of Chekhov's stories. Instead of working on his intended project (the revision of a play) he found himself reading about—and gradually identifying with—the Russian writer's own weariness with life. In 1890, at age 30, Chekhov had begun to make a name for himself as a storyteller, was supporting his family and seemed content, successful and self-confident. Yet he felt compelled to make an arduous journey across Russia to survey the population of a distant penal colony. Why?

McConkey's answer to this question becomes the thematic impulse of *To a Distant Island*. Taking the known facts, he interprets and extrapolates from them, adds imagined conversations and attempts to reconstruct a plausible version of Chekhov's psychology on this journey. The result is neither history nor fiction, but rather a kind of reimagining of the past, enriched by McConkey's reflections and accounts of his life in Florence.

This tricky technique—recalling a teacher's presentation of a poem or novel, interlaced with his or her personal commentary—works marvelously if one gives it a chance. Most nonfiction today emphasizes a surface glamour and speediness against which *To a Distant Island* will seem old-fashioned. To be properly appreciated McConkey's book needs to be read deliberately, as it was written. Not that

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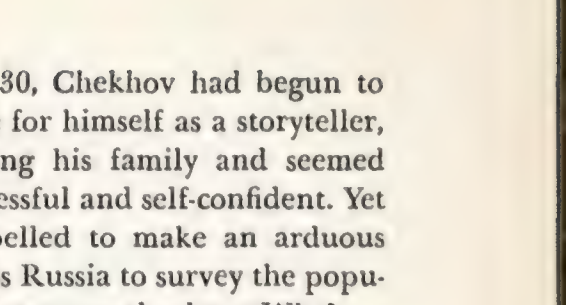

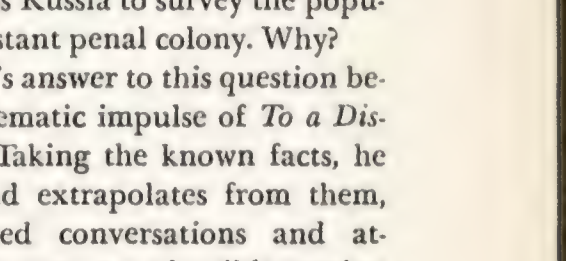

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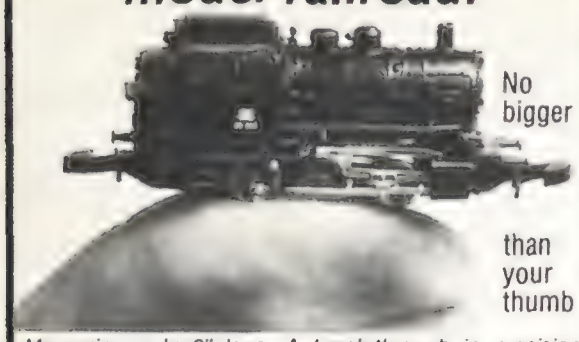

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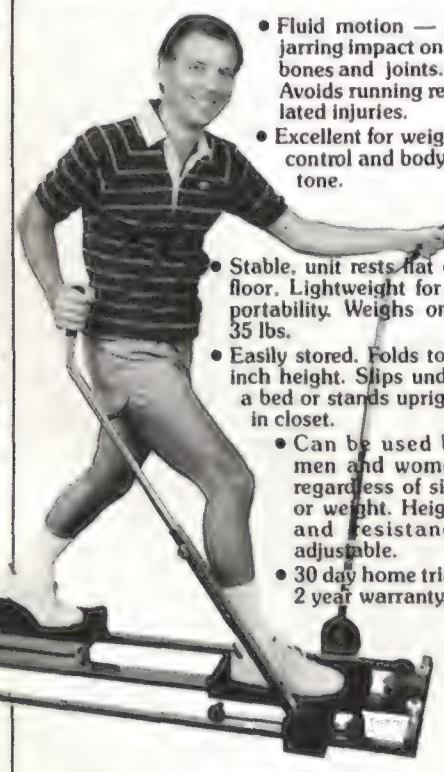

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the writing isn't fine; how could it fail to be when it quotes extensively from Chekhov? "When a cold wind blows and ruffles up the water, which now after the floods is the color of coffee slops, one feels cold and bored and miserable; the strains of a concertina on the bank sound dejected, figures in tattered sheepskins standing motionless in the barges that meet us look as though they were petrified by some unending grief."

Out of this gray despondency McConkey depicts the unlikely growth of his own Wordsworthian joy in the created world. He returns from a trip to Sicily with a feeling of elation and purpose much as Chekhov, halfway across Russia, escapes injury in a carriage accident and finds himself reborn. On Sakhalin, in Chekhov's shift from concern with his sickness of heart to the sickness of his society, McConkey detects their mutual salvation and writes: "One can flee life as a loathsome prison to find it redeemed in an actual prison at the cold edge of the world."

Lest I make this book sound lugubrious, let me add that it is leavened with sharp observation and subtle wit. McConkey: "One most fears death during those intervals in which life approximates it, and seems pointless." Chekhov: "[the people in Siberia] could speak openly of whatever they wished, for there was 'no one to arrest them and nowhere to exile them to.'" Chekhov's most constant theme, McConkey shrewdly notes, is "the restrictions we consciously or unconsciously impose upon the degree of freedom and happiness possible for us."

In the end, Chekhov fully recovers his spiritual health and writes "Gusev," a masterpiece about the acceptance of death. Surprisingly, McConkey finds himself embarked on "a novel I had not expected to write." The reader may not experience such creative renewal, but from it he or she will certainly learn again the most important of human lessons: one must struggle against the world's "oppression and suffering while loving an evanescent life and its sensuous pleasures."

Michael Dirda
Washington Post Book World

The Broken Brain
Nancy C. Andreasen
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the chemical workings of the human body, promising new ways of correcting body chemistry that goes wrong. Only within the past 30 years or so have investigators gained a deeper understanding of the chemical-electrical impulses whizzing through that least accessible realm of flesh, the brain. In this book, a model of balanced science writing, Dr. Andreasen sketches the biological research background of new findings that are transforming the treatment of brains gone wrong, flesh that is "broken." A mentally troubled person today is increasingly likely to get not just soothing words, but corrective medication for a chemical imbalance that's causing the problem.

"Mental illnesses are diseases that affect the brain, which is an organ of the body just as the heart or stomach is," says Dr. Andreasen. And so the highly subjective, just-talk-it-out psychoanalytic techniques based on the later teachings of Freud, which always had a greater following in America than in Europe, are being replaced by treatment that is more objective, more medical and often more effective in schizophrenia and depression.

Dr. Andreasen is a professor of psychiatry at the University of Iowa College of Medicine, and an author of many scientific papers. Before entering her career in medicine she was an English professor, which doubtless accounts for her care for the right word. For example, the book is subtitled *The Biological Revolution in Psychiatry*, a dust-jacket eye-catcher that strikes the author herself as "perhaps much too colorful and extreme." But the *spirit* of revolution is stirring researchers, in "the sense that we are going to change things dramatically, even if the process requires a number of years."

Caution about sensational words is what makes this book so reassuring to the reader who's wary of the scientific "breakthroughs" forever being proclaimed in supermarket tabloids. The author and her publisher faced the old dilemma about describing a fast-moving field of science: When do you freeze the situation in a snapshot of the current research scene and write your book? "Our knowledge is simply moving faster than writers and printing presses can present it," says Dr. Andreasen. Satisfied that the new biological basis of psychiatry isn't just a fad, her snapshot presents the state of knowledge about as it existed in 1983.

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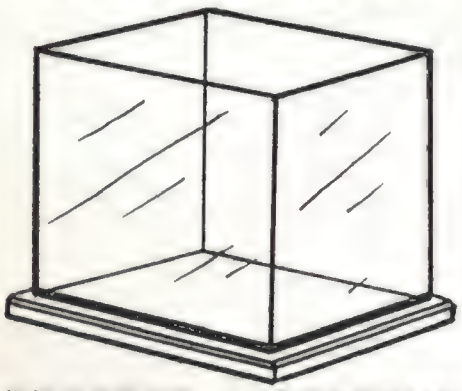

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And exciting things are surely happening. Computerized scanning machines with names like CAT and PET now make multilevel pictures of the living brain, revealing structural abnormalities (SMITHSONIAN, January 1984). More drugs are being found which seem to act beneficially on specific areas of a disturbed brain. Psychiatrists themselves are trying to codify their disorderly old definitions of the main kinds of mental illness, to gain more precision in diagnosis.

Yet the picture must include research questions that, at the time of the snapshot, are unresolved. Dr. Andreasen believes the most important research goal in psychiatry today is solving the riddle of schizophrenia, the varied pattern of self-mutterings, hallucinations and disjointed speech that often marks someone as "crazy." Though the disorder seems to involve changes in brain chemistry and structure, and perhaps a genetic predisposition, there's no known cause or permanent cure. Drugs can bring remarkable improvement in persons suffering from depression, but not always, and the illness may recur. For such memory-robbing dementias as Alzheimer's disease, no good treatment is yet available.

"Psychiatry in the past has tended to oversell what it is able to do for people," says the author. "Biological psychiatry promises some help, and often a great deal of help, but it does not guarantee a miraculous cure for every patient."

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There's another good thing about this book. Refreshingly absent is the tendency in some fields of science—anthropology, for example—to beat up on rival schools of thought. Dr. Andreasen clearly thinks the traditional practitioners of psychoanalysis, with their costly therapy for mildly anxious people, are giving way to real body-doctors treating physically sick brains. Insurance companies, indeed, will insist on it. But she concedes there will always be a place in medicine for someone with a sympathetic ear.

The new biological road maps of the brain should, says Dr. Andreasen, bring "a new era of genuine enlightenment concerning the nature of mental illness." For the lay reader her book is a good start.

Arlen J. Large
Science writer, *Wall Street Journal*

Dos Passos: A Life
Virginia Spencer Carr
Doubleday, $24.95

John Roderigo Dos Passos (1896-1970) seems now to be the forgotten man from the literary generation that included Hemingway, Faulkner, Wolfe and Fitzgerald, and of which he was once considered an important, perhaps even a preeminent, member. The social ferment of the 1960s would find this staunch defender of American values "too liberal for conservatives, too conservative for the liberals" (the words are those of journalist Oriana Fallaci, who interviewed him in 1967). Still, for his best work—the challenging antiwar novel, *Three Soldiers* (1921), the expressionist collage, *Manhattan Transfer* (1925) and his great trilogy portraying America heading toward the Depression, *U.S.A.* (1930-36), as well as some interesting and incisive nonfiction (much of which remains uncollected)—Dos Passos deserves to be remembered as one of our classic 20th-century writers.

Virginia Carr's approach is chronological and exhaustive, relying heavily on correspondence, interviews and assorted unpublished materials made available to her by Dos Passos' family. She tells the full story of his illegitimate birth and European upbringing (to avoid scandal and family unpleasantness), and constructs a vivid cameo biography of his father, John Randolph Dos Passos, son of a Portuguese-born cobbler, a lawyer and intellectual celebrity whose closeness to his son and encouragement of the boy's

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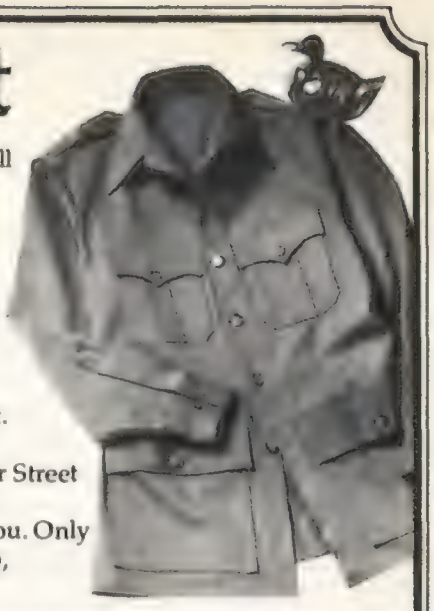

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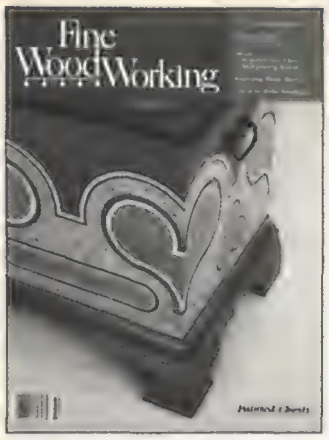

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own intellectual interests undoubtedly strongly influenced young John's early development as a writer.

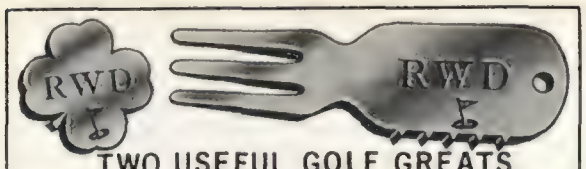
She also offers a detailed picture of Harvard University around the time of World War I, when John published in collegiate magazines and formed his first literary friendships, flirted with "radicalism" no less than socialism and cultivated his interest in "what was new and experimental in modern art and music."

There are lively accounts of Dos Passos' frequent travels (including a stunning chapter on his 1928 visit to Russia) and of his passionate espousal of the causes of Sacco and Vanzetti, and the Scottsboro boys, and of his involvement with the American Committee to Aid Spanish Democracy before and during the Spanish Civil War.

Carr properly emphasizes the ambition and diligence that enabled Dos Passos to produce a voluminous body of fiction, nonfiction and reportage despite continuous illness and financial disrepair, and even following the tragic automobile accident in which his first wife was killed and he lost an eye. She charts the sad course of his defiant final years, out of favor with the leftist critics after he had firmly repudiated socialism (and, in effect, liberalism, too), criticized Franklin Roosevelt, supported Barry Goldwater in 1964, written regularly for William F. Buckley's *National Review* and toured the campus lecture circuit ("Speaking His Mind as a Conservative, 1960-69").

This is rich material, especially since so many of Dos Passos' intimates were themselves fine writers and have left a horde of testimony for Carr to use. One admires in particular the masterly skill with which she has woven relevant passages from her subject's correspondence into her narrative. Many readers will be most impressed by her inclusion of his lively, funny exchanges of letters with Edmund Wilson and her account of his nearly lifelong off-and-on friendship with Ernest Hemingway, punctuated at times by the latter's characteristic cruelty and effectively ended by the rather unflattering fictionalized portrayal of Hemingway in the 1951 novel *Chosen Country*.

This is not an interpretive biography: Carr never hazards her own judgments of Dos Passos' works, instead offering detailed summaries of the reviews they re-



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ceived. At least one of her inclusions—prose-poems imitating the "Camera Eye" and "Newsreel" techniques Dos Passos developed for the *U.S.A.* novels—seems only an attention-getting device, which this fine book doesn't really need. What it provides, almost unfailingly, is a convincing impression of John Dos Passos' intellectual toughness and personal stability; we understand how he outlived so many of his contemporaries and became such an irresistible target of his detractors, and come away from the book persuaded, I believe, that his finest fiction has not become dated, remains relevant and will last.

Bruce Allen
Literary journalist and critic

Worlds Apart: An Explorer's Life
Robin Hanbury-Tenison
Little, Brown, $22.50

One of the most valuable services that a nonfiction book can perform is to get the reader thinking about a human problem in a new way. *Worlds Apart*, British explorer Robin Hanbury-Tenison's latest, does exactly that. The problem is the perennial destruction of primitive societies by civilized ones, and Tenison's rhetorical contribution to the debate is to tot up the numbers—he counts nearly 200 million people, "or about five per cent of the world's population [as] still isolated from the mainstream of modern life"—and to characterize the result innovatively: "Together they constitute the largest minority in the world."

Tenison's first encounters with peoples like the Yanomami of Brazil, the Penan of Malaysia, and the Tuaregs of Libya were largely accidental—interludes in such grandiose larks as the first vehicular crossing of South America at its widest point (1958). Gradually, however, this youngest son of landed gentry, a graduate of Eton and Oxford, came to admire the self-sufficient hunter-gatherers still among us and to resent the efforts of greedy settlers and smug missionaries to dispossess them, to shame them into donning clothes, planting fields and praying to Jesus.

Tenison did not let himself become an infatuated romantic. Of an Indonesian tribe called the Dani, he writes: "There was certainly room for an infusion of the milk of human kindness into their way of life since some of their traditional prac-

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tices—such as cutting off fingers whenever anyone died, their methods of abortion, punishment and revenge—seemed unnecessarily crude and cruel." But he urges example, not belittlement or force, as the proper method of infusion. And he deplores the arrogant assumption that "plastic modernity" is superior to a culture like the Yanomami, who had occupied their territory for roughly 15,000 years.

Tenison's practical response to the cultural onslaughts he has witnessed was to found an organization, Survival International, "that aims to deflect the destructive influence of 'civilized' society." The goal is not to perpetuate primitive tribes' isolation—that would be impossible—but to equip them with enough savvy for self-defense and, where necessary, to intercede with government agencies on their behalf. The Yanomami themselves have become something of a success story. In 1982, thanks in part to the advocacy of Survival International, the Brazilian government preliminarily set aside an extensive area for their protection.

Worlds Apart harbors a certain amount of advocacy itself, but Tenison is never preachy or knee-jerk. He distinguishes "good" missionaries from "bad" (Catholics consistently get higher marks for sensitivity to other cultures than Protestants) and never lets polemics overwhelm his appetite for adventure. He is proud, for example, of being among the few outsiders to have seen the anoa, a small species of wild buffalo found only on the Indonesian island of Sulawesi. He is also a fluent, evocative writer, particularly when describing the rain forests that he loves.

Still, in the end it is Tenison's message that dominates his book. In an impassioned but not strident section of the Yanomami chapter, he contrasts their indifference to possessions with most of humanity's scramble after affluence. "This is why I believe that [the Yanomami] and people like them matter more than those who would displace them on their land. Not because any one human life is more valuable than any other, but because some societies, through their viability and the hope they can give to a desperate world which sees its own extinction as dangerously imminent, deserve to survive so that the species may survive."

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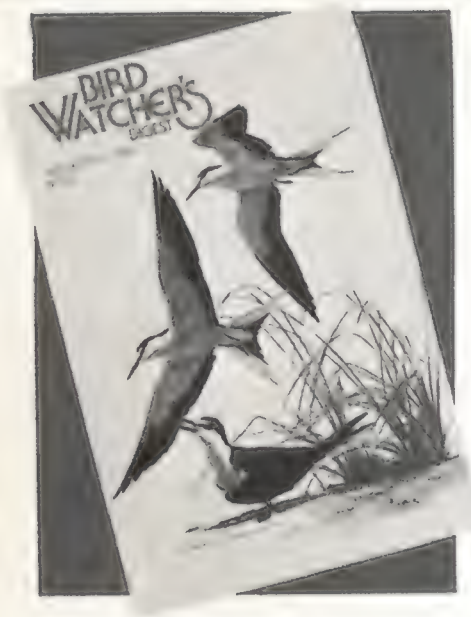

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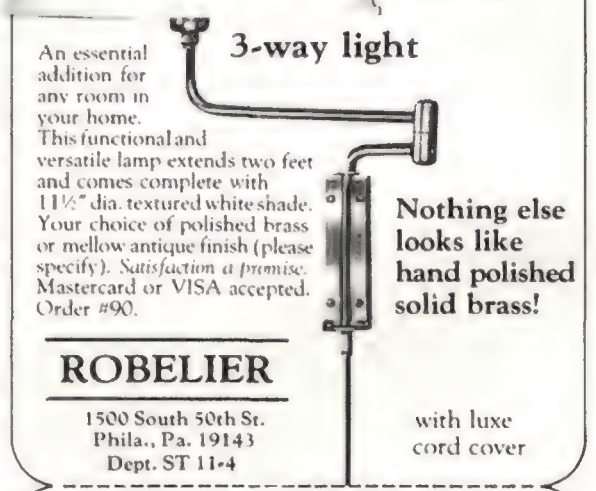

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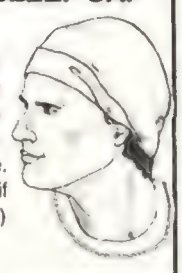

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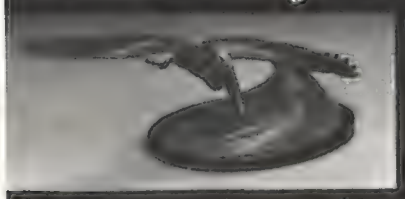

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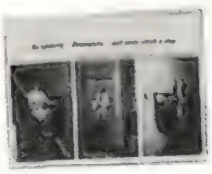

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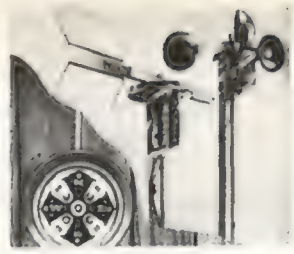

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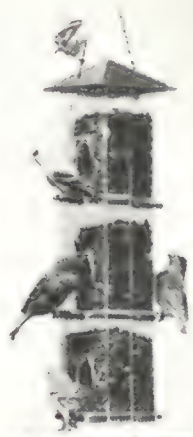

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Smithsonian highlights

The small and lyrical exhibition at the Freer Gallery of Art, *Autumn Colors*, is a lovely way to celebrate the changing season. Ann Yonemura, assistant curator of Japanese art, has selected 20 works from the Freer collection—paintings, lacquerware and ceramics—that illustrate how the Japanese enjoy one of their two favorite seasons (the other is spring). The exhibit will be on view through mid-December.

Special November exhibits and events

Hirshhorn Museum & Sculpture Garden
Content: A Contemporary Focus, 1974-1984 (through January 6, 1985) Tenth anniversary exhibition.
Recent International Animation (November 8, 9; 8 P.M.) Program concentrates on new Eastern European films.
Interview and Action: Joseph Beuys (November 29; noon) Film about this conceptual artist's notorious 1974 performance, "I Like America and America Likes Me," in which he and a coyote lived in a gallery together for three days.

National Museum of African Art
Praise Poems: The Katherine White Collection (through February 24, 1985).

Renwick Gallery
Chicago Furniture: Art, Craft and Industry, 1833-1983 (through April 7, 1985) See *Highlights continued.*
Newcomb Pottery: An Enterprise for Southern Women, 1890-1940 (November 2-February 24, 1985).

National Museum of American Art
Werner Drewes, Sixty-five Years of Printmaking (through December 24).

National Museum of American History
Eleanor Roosevelt: First Person Singular (through January 6, 1985).

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Focus on Flight: Four Decades of Aerial Photography (November 16-September 1985) One hundred photographs from the 1920s-1960s taken by Rudy Arnold and Hans Groenhoff.
Early Flight: 1900-1911 (November 24-December 31) Original photographs from the Wright brothers' personal collection.
Astronomy From Earth Orbit: The Hubble Space Telescope (November 3; 9 A.M.) Monthly sky lecture.
World Champion Air Racers: From Concept to Competition (November 8; 7:30 P.M.) Lecture by championship racer Frank Taylor.

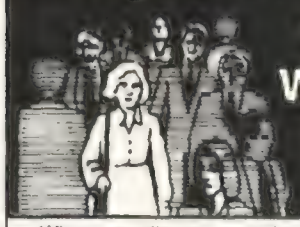
National Museum of Natural History
Treasures from the Shanghai Museum: 6,000 Years of Chinese Art (through November 30).
China Today: Scenes from Present-Day China (November 9-January 6, 1985) Photographs by Chinese photographers.

Freer Gallery of Art
Some New Aspects of Japanese Porcelain of the Seventeenth Century (November 13; 8:30 P.M.; Freer Gallery Auditorium) Slide lecture by Hiroko Nishida of the Nezu Institute of Fine Arts is the second annual John A. Pope Memorial Lecture.
Autumn Colors (through mid-December) Twenty Japanese objects.

National Portrait Gallery
Miguel Covarrubias Caricatures (November 16-January 13, 1985) Major exhibition of drawings and paintings by Mexican artist. See page 174.
Metropolitan Opera Centennial: A Photographic Album (November 16-January 13, 1985).

In Freer Gallery's *Autumn Colors* show: lacquer writing box, Japan, 18th century.

Are you [illegible] of the out of who has not prepared a will?



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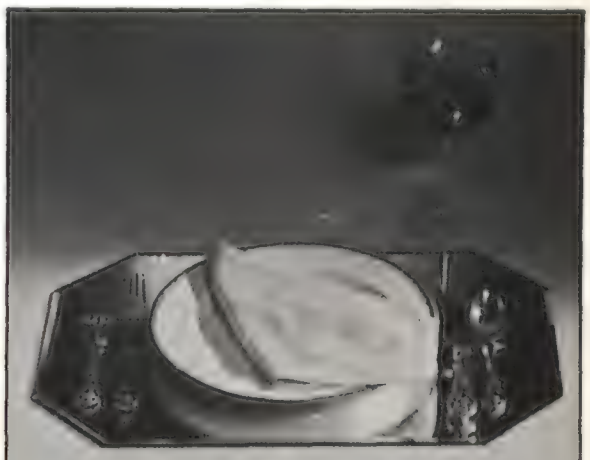

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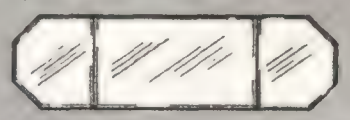

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Cooper-Hewitt Museum (New York)
European Illustration: 1974-1984 (November 13-February 3, 1985).
Objects of Adornment: Five Thousand Years of Jewelry from the Walters Art Gallery, Baltimore (through January 6, 1985).
Embellished Calendars (November 20-February 24, 1985) Examples from the 16th century to today.

The Sea: A Quest for Our Future

On Wednesday, November 28, a Smithsonian Television Special will be shown. Through a combination of aerial and microscopic photography, with breathtaking views underwater, the one-hour program explores newly discovered coral reefs, their diversified marine organisms, and the interaction of the scientists who study them.

Check your local PBS listings for the broadcast time.

Exhibition catalogs

Catalogs available at this time include:
Treasures from the Shanghai Museum (paper, $10.95)
Yesterday's Tomorrows (paper, $17.95; cloth, $29.95)
Visions of the Future (the art of Robert McCall; cloth, $9.98)
Content (paper, $15)
Werner Drewes (paper, $4.75)
Chicago Furniture (paper, $25)
Praise Poems: The Katherine White Collection (paper, $17.95)

To order, send check or money order to Museum Shops, Box 44083, Washington, D.C. 20026-0083. Include 15 percent of total purchase to cover postage and handling (minimum, $1.75).

Resident Associate events

To become a Resident Associate, or to find out about the many other activities presented monthly, or for fee and ticket information, call 357-3030. Here are some November events:
The Sumptuousness of Plain Living: Dutch 17th-Century Painting (November 4) All-day seminar by art historian Malise Ropner.
A Few Drops of Wine (November 4; 7:30 P.M.) W. S. DiPiero reads poetry of Leonardo Sinisgalli, with musical accompaniment.
Tuesday Mornings at the Smithsonian (November 6, 13, 20, 27; 10:40 A.M.) Lectures by Smithsonian staff on varied topics; call for details.
Meredith Monk Solo Performance (No-

vember 13; 8 P.M.) Mixed-media event.
An Evening with New York City Ballet Actor-Dancer Shaun O'Brien (November 27; 8 P.M.).
The Baroque Heritage (November 27 or 28; 8 P.M.) Season premiere concert of Smithsonian Chamber Players.

Smithsonian on the air

Radio Smithsonian: features on this weekly half-hour program include the history of "spot" advertising in political campaigns and a profile of the Smithsonian's new Secretary.
Here at the Smithsonian . . .: two-minute TV features include a look at the design of the Multiple Mirror Telescope and a demonstration of the ancient game of mankala.

To find out what stations in your area carry these radio and TV programs, write Office of Telecommunications, MNH Room C222B, Washington, D.C. 20560.

Smithsonian Institution Traveling Exhibition Service

SITES circulates exhibitions to hundreds of cities outside Washington. To sponsor a show in your community, write SITES, Smithsonian, Washington, D.C. 20560. Here are some November exhibitions:
Springdale, Arkansas (November 3-December 9) *Mathew Brady Photographs from the National Portrait Gallery's Meserve Collection*, Shiloh Museum.
Boston (November 3-February 23, 1985) *Pressed on Paper: Fish Rubbings and Nature Prints*, Boston Museum of Science.
New York City (November 1-January 31, 1985) *Ban Chiang: Discovery of a Lost Bronze Age*, American Museum of Natural History.

Membership benefits when visiting the Smithsonian

Begin your visit at the Associates' Reception Desk in the original Smithsonian Institution Building, the castle. The cordial welcome includes special printed materials and full details about your benefits: dining in The Court; discounts in most Smithsonian shops, and a slide/lecture orientation to the 13 museums and the Zoo. The Reception Desk is staffed daily 10 A.M. to 4 P.M.

Add to the pleasure of your visit by planning ahead: a helpful pre-visit packet is free; send postcard request or phone Associates' Reception Center, Smithsonian Institution, Washington, D.C. 20560, (202) 357-2700; for hearing impaired, TDD (202) 357-1729. Allow two weeks for receipt.

Is this the wave of the future?

Find out when NOVA examines the ever-growing field of fish farming around the world.
"Farmers of the Sea" on NOVA, Tuesday, Nov. 13.
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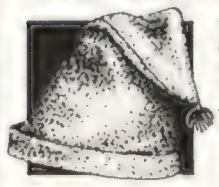

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Chicago furniture at the Renwick

Until World War II, the Windy City was the country's foremost maker of tables, beds and cattle-horn chairs

In the late 19th century, it could be said that "all railroads led to Chicago." Cattle were brought in from the West to be herded into the huge stockpens on the south side, while immigrants flooded in from the East looking for work. As the wild, new commercial hub of the nation's crossroads, Chicago soon had a style all its own, especially in architecture and design. The city became the country's furniture-manufacturing center, with more than 200 factories by 1885, and remained so until World War II.

An exhibition at the Renwick Gallery through next April 7, "Chicago Furniture: Art, Craft & Industry, 1833-1983," documents this legacy. Organized by the Chicago Historical Society, it contains 150 pieces of furniture and other decorative items that reflect the full range of design and production.

Many of the more standard items—couches, dining tables, bureaus—were widely distributed across the country through the use of mail-order catalogs and the railroads, influencing taste from coast to coast. Others—like the chair fashioned of cattle horns—may have been more appreciated closer to home.

Constance Bond

Chair was made about 1890, with steer horns from Chicago's Union Stockyards.

Queen Anne lounge with original brown plush upholstery dates from early 1880s

Anglo-Japanese-style wooden easel was part of an eight-piece "novelty set."

Oak dower chest was made by Madeline Yale Wynne in 1899 as a wedding gift.

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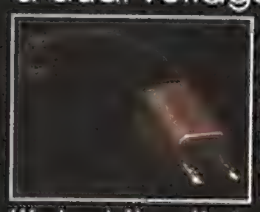

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Domestic Study Tours

Everglades December 3-9: For the novice or expert, canoe and camp among the Ten Thousand Islands along the west coast of Florida.

Christmas at the Smithsonian December 7-9: Welcome the holidays with behind-the-scenes tours, music and festive dining at selected museums.

Hawaii January 20-February 2 or February 17-March 2: Discover secluded beaches, waterfalls and rain forests on a camping trip to three of the islands.

Puerto Rico February 4-13: Observe rare tropical birds and flowers and travel to remote areas of the island—from mountain rain forests to white sandy beaches.

Yellowstone in Snow February 15-25: Ski across magical landscapes to observe wintering elk and bison, steaming geysers.

Baja Whale Watch February 22-March 2: Board the *Royal Polaris* in San Diego for an unforgettable trip down Mexico's Baja peninsula to observe gray whales.

Savannah and Charleston March 23-30 or March 31-April 7: Enjoy warm Southern hospitality on a tour of historic homes, inland gardens and nearby plantations.

Okefenokee Swamp March 30-April 6 or April 6-13: A serene canoe trip through this unique wildlife refuge.

Arizona in Spring April 9-17 or April 11-19: Explore Geronimo country. From the Arizona-Sonoran Desert to the Chiricahua Mountains, see cacti in bloom, meet researchers in the field and attend a local Indian fiesta.

Chesapeake Bay Cruise May 18-25: Enjoy fresh crabs and oysters aboard the elegant yacht *Nantucket Clipper*, while learning about the bay's history. Cruise to such charming 18th-century towns as Annapolis, St. Michaels and Williamsburg.

Coming in May: Trace the eastern campaign of the Civil War following the routes of Stonewall Jackson, Grant and Lee. Visit battlefields and historic sites.

Alaska June 15-25: Board the *Majestic Alaska Explorer* for a breathtaking cruise from Seattle to Ketchikan through Alaska's famed Inside Passage. Stop at historic ports of call to observe local Indian cultures; see killer whales and the turquoise water of Glacier Bay.

Washington "Anytime" Weekend: Plan a fall weekend to visit your choice of Smithsonian museums. Package includes two nights at Loews L'Enfant Plaza or the Hyatt Regency, meals and exclusive tour of Smithsonian castle. Application and payment must be received at least ten days prior to arrival.

Foreign Study Tours

The Atlantic Crossing December 6-21: Sail from the Canary Islands to Antigua on the four-masted *Sea Cloud.*

Puerto Vallarta to Mazatlán December 21-30: Board the *San Jose* for a seafaring adventure to see bird rookeries, humpback whales and colorful reefs.

People's Republic of China, 1985 Exclusive tours to a variety of destinations are led by a Sinologist and include intensive pretour briefing.

Mexico & El Tajín January 11-23 or March 22-April 3: Sample the diverse cultures around Mexico City and Veracruz.

Yucatán Adventure January 17-29 or February 14-26: From Mérida, tour extraordinary Maya ruins in the company of a pre-Columbian archaeologist.

Indian Wildlife Safari January 25-February 21: Travel by elephant and jeep to observe rare species of birds and animals in exotic India and southern Nepal.

Zapotec & Maya Mexico January 31-February 12 or February 28-March 12: Discover the archaeology and colonial cities, traveling from highland to rain forest to the Yucatán.

A Hike in New Zealand February 6-22: From Lake Te Anau to Milford Sound, discover wild flowers, crystalline lakes and snow-capped peaks on the Milford Track.

New Zealand February 6-23: Relish glorious scenery on this in-depth tour with talks on natural history, the Maori and Parliament. Includes a family visit.

Indonesia March 10-31: Cruise beyond the ordinary to the islands of the Java Sea. Study natural history and observe local customs and traditional rituals.

Kyoto Seminar March 15-31: Live Japanese-style. Field trips complement lectures on art, history, religion and language.

Norman Countryside April 6-21 or October 5-20: The ancient city of Rouen provides a superb setting for walking tours, museum visits and special excursions.

Canals and Old Masters April 10-24: Art museums, historic tours and spring flowers highlight four days in Amsterdam. Then sail by riverboat to explore medieval Dutch and Belgian ports.

Paris and Provinces April 20-May 5: Six days in Paris with walking tours, special seminars at the Louvre, followed by a choice of travel to Provence or Burgundy.

Ecuador and the Galápagos Islands May 11-24: After visiting Quito and the Andean countryside, board the *Santa Cruz* for a study voyage to Darwin's famed islands.

Russia May 12-28: Leningrad, Moscow and Tallinn. See the Hermitage, Kremlin, other landmarks. Visit schools, factories, clinics and enjoy the best of Russian theater.

Write National Associates, Capital Gallery 455 Smithsonian Institution, Washington, DC 20560 or call (202) 287-3362 for tour brochures

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Smithsonian Seminars

Expand your educational horizons as you combine a pleasure-filled visit to the nation's capital with stimulating seminars that highlight Smithsonian museums and research activities. These purposeful vacation seminars feature richly illustrated lectures by expert faculty, behind-the-scenes tours of world-famous collections and the opportunity to share your special interests with fellow Associates.

Animal Communication:
Classic Studies and New Discoveries
March 24-29, 1985
Join scientists at the Smithsonian's National Zoological Park for an in-depth look at the fascinating ways in which animals communicate through camouflage, armament, subtle scents and brilliant visual displays. Led by Zoo Director Dr. Michael H. Robinson and other eminent animal behaviorists, the seminar features lectures and tours at the Zoo and field trips to both the Zoo's Conservation and Research Center in the beautiful Blue Ridge Mountains, and the National Aquarium in Baltimore.

American Masterpieces:
Three Centuries of Antique Furniture
March 24-29, 1985
Explore the dazzling collections of American antique furniture at the Smithsonian's Museum of American History, the Diplomatic Reception Rooms at the State Department and Delaware's renowned Winterthur Museum with Oscar P. Fitzgerald, author of the acclaimed *Three Centuries of American Antique Furniture*, and antiques expert William Stahl of Sotheby's. This intensive course will highlight a wide range of historic styles and provide insight on current market trends.

Watch this column for upcoming seminars on **Aircraft Restoration,** May 19-23, and the **Ming and Ch'ing Dynasties,** June 2-7. Smithsonian Seminars in Washington are intended to provide enjoyable educational opportunities that further your involvement with the Smithsonian. All programs include classes and tours, welcoming reception, daily breakfast with fellow Associates and a gala farewell luncheon. Hotel accommodations are optional.

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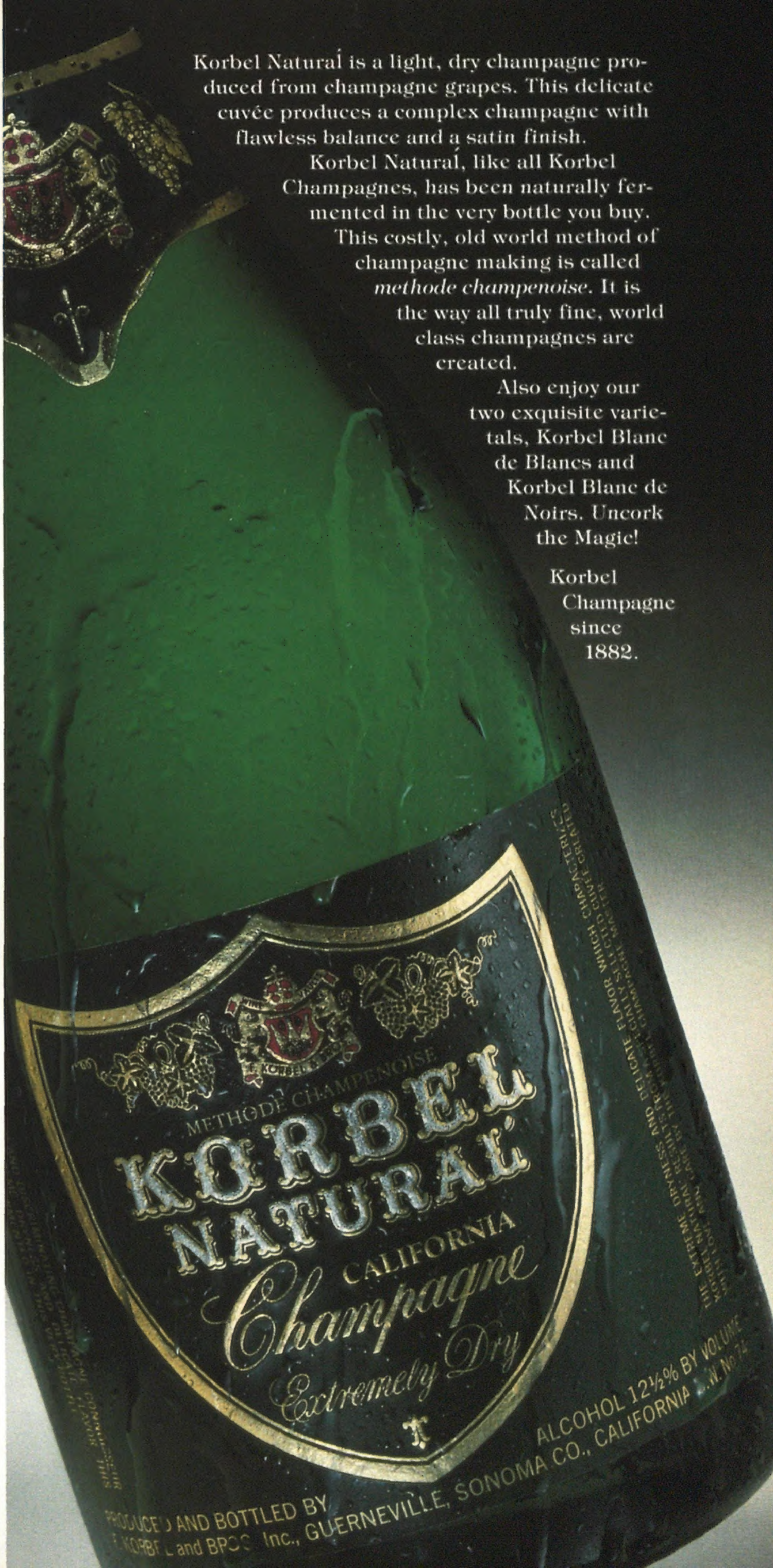

By Richard Wolkomir

O Esso, Esso, where is thy double ss?

Not long ago, the Allied Chemical Corporation decided it no longer liked its name. Such identity crises sometimes strike teenage girls—Alice declares that, henceforth, she is Alyce, or Alicia, or Allee, and that Alice, whose existence has been terminated, will not be responding to further inquiries. Changing a great company's name is a touch more complicated.

In 1972, for instance, when antitrust laws prompted Esso to rename itself Exxon, the change cost more than $200 million. Those X's were expensive because when a corporate giant changes names, its branches from here to Bangkok have to repaint the signs on their factories, trucks, ships and Learjets. They need new stationery, too, prime-time advertising to spread the word, new logos for company bowling-team shirts.

Nevertheless, corporate name changes are at an all-time high, about 1,000 every year. One reason is the urge-to-merge rage. Sometimes the process is simple. When Nabisco espoused Standard Brands, the happy couple became Nabisco Brands. Sometimes not. White Sewing Machine Company thus became White Consolidated Industries. U.S. Rubber, branching into chemicals and plastics, adopted a fancier title and became Uniroyal, Inc., making use of the name of one of its better automobile tires.

And as everyone who reads the Bible or pays attention to advertising knows, names can be magic. Back in 1888, George Eastman had a problem—what should he call his new camera? That being the pre-MBA Age, his approach was primitive. He eyed the ceiling, twiddled his thumbs and finally said "Kodak!" As he later explained: "The letter 'K' had been a favorite with me—it seems a strong, incisive sort of letter. . . . It became a question of trying out a great number of combinations of letters that made words starting and ending with 'K.' " Millions of Kodaks later, the name is still going strong, evoking the mystery of ancient Egypt's Karnak and that rugged Alaskan bear, the Kodiak.

Ours is an era of images and an age of experts. No ceiling eyeing or thumb twiddling for us. Today, a specialist in industrial nomenclature (a monikerologist?) will put your firm on the couch, so to speak, getting a fix on its fears and aspirations, and then craft a new company name—*scientifically*. And all for a mere $50,000 to $125,000.

In its moment of need Allied Chemical hired such a namer of corporations—Lippincott & Margulies of New York. Soon the monikerologists were busy in their Park Avenue workshop, sawing and hammering away at Allied's name, muttering about "image" and "positioning." At last, like a magician triumphantly pulling a rabbit out of a hat, they announced that they had it. Henceforth, the Allied Chemical Corporation would be . . . the Allied Corporation!

Pooh-poohers might argue that this required no more than a glance or two at the ceiling and one thumb twiddle. But perhaps corporations—spooked out there in the jungles of commerce—are like those primitive tribes whose names had to be bestowed by a shaman, with appropriate incantation. *Fortune* magazine, in fact, notes that monikerologists like NameLab, in San Francisco, do use a kind of sorcery, punching into that modern magic box, the computer, a "dynamic suffix, something like ex or ix," adding the name of the company's product (like grates or air compressors) and sagely pondering the printouts: Gratix, Comprex. . . .

Simple folks like you and me, who clutch over naming an Irish setter or the new baby, hesitate to advise these christeners of mighty corporations. *Pow!* United Aircraft becomes United Technologies! Some of us worry about computerized naming, though. All those X's, for instance, may be only the lengthened shadow of the success of Xerox. But might they not lead to a namescape as numbing as today's cityscapes, phalanxes of glassy, upended shoe boxes?

We have so many new things to name: new lemony cleansers, exciting advances in toothpaste, telephones that chime the time. What a grand chance to shape our own national namescape. How often the chance is missed. The gritty old American Brake Shoe and Foundry Company, its name so full of smoke and clanging, has now slicked itself up as Abex. And then there was the Michigan Seamless Tube Company which recently emerged from the workshop as Quanex (a name brewed from "quality" and "nexus," which the monikerologists say implies a "quality connection"). And so we urge the monikerologists: hire poets!

There is a clear precedent—of sorts. In 1955, the Ford Motor Company asked poet Marianne Moore to help name a mysterious new car series. Her first idea, suggested by a flower found only in Tibet and on one Hawaiian mountain, was the Ford Silver Sword. Miss Moore also liked Hurricane, with each model named for a different bird, such as Hurricane Aquila (eagle). Over a period of months in a courtly exchange of notes with a diffident Ford executive, she suggested the Impeccable, the Ford Fabergé, the Aeroterre, the Chaparral, even, humorously, the Utopian Turtletop.

In the end, however, the company relied on a name supplied by its own monikerologists. "It has a certain ring to it. An air of gaiety and zest," the Ford executive wrote, explaining the choice. "Our name, dear Miss Moore, is—Edsel."

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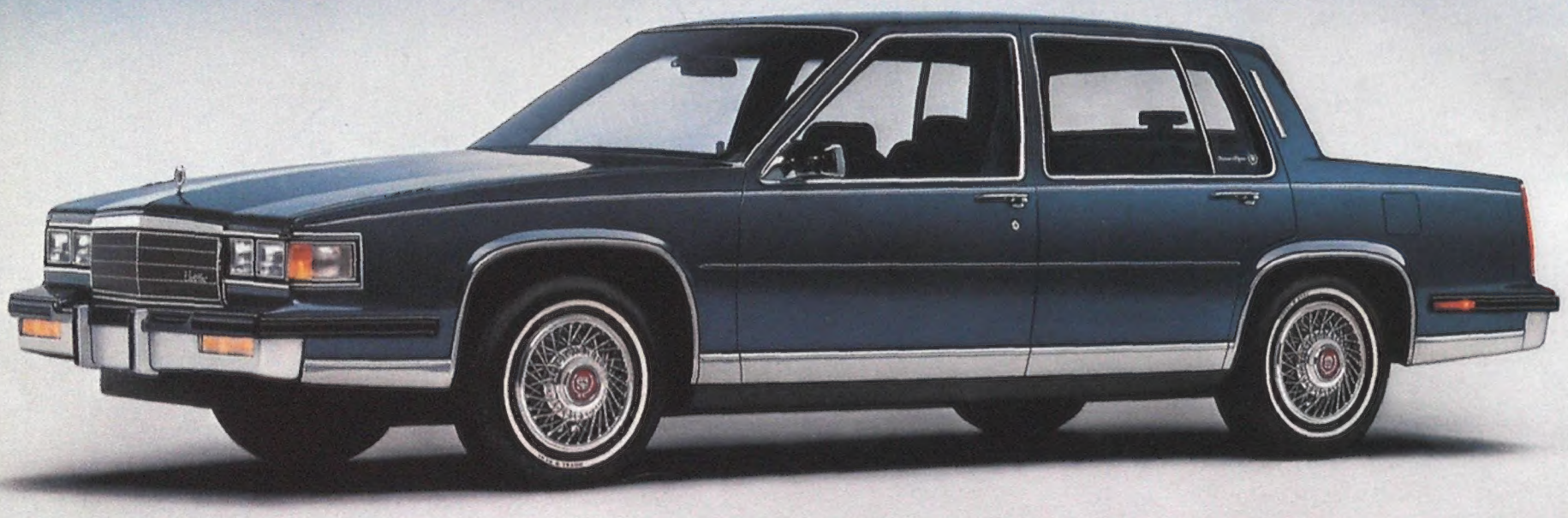

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